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Attorneys for the Class

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT, AND MOHAVE WATER DISTRICT	**DOCKET NO. W-01303A-10-0448** **CLASS OF HOMEOWNERS ASSOCIATIONS' NOTICE OF FILING DIRECT TESTIMONY OF GLENN A. WATKINS AND JOHN SHAW, P.E.**

In accordance with the September 23, 2011, Procedural Order in this docket, the Class of homeowners associations hereby files the Direct Testimony of

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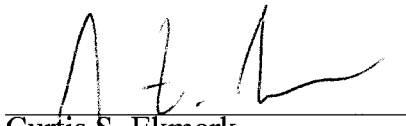
Glenn A. Watkins and John Shaw, P.E. in the above-referenced matter.

RESPECTFULLY SUBMITTED this 10th day of November, 2011.

EKMARK & EKMARK, L.L.C.



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ORIGINAL and thirteen (13) copies of the foregoing filed this 10th day of November, 2011, with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

COPY of the foregoing hand-delivered this 10th day of November 2011 to:

Dwight Nodes, Administrative Law Judge
Legal Division
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

COPIES of the foregoing mailed this 10th day of November 2011 to:

Janice Alward, Chief Counsel
Charles Hains, Attorney
Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007

Steve Olea, Director
Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007

BACKGROUND & EXPERIENCE PROFILE

GLENN A. WATKINS

VICE PRESIDENT/SENIOR ECONOMIST
TECHNICAL ASSOCIATES, INC.

EDUCATION

1982 - 1988	M.B.A., Virginia Commonwealth University, Richmond, Virginia
1980 - 1982	B.S., Economics; Virginia Commonwealth University
1976 - 1980	A.A., Economics; Richard Bland College of The College of William and Mary, Petersburg, Virginia

POSITIONS

Jul. 1995-Present	Vice President/Senior Economist, Technical Associates, Inc.
Mar. 1993-1995	Vice President/Senior Economist, C. W. Amos of Virginia
Apr. 1990-Mar. 1993	Principal/Senior Economist, Technical Associates, Inc.
Aug. 1987-Apr. 1990	Staff Economist, Technical Associates, Inc., Richmond, Virginia
Feb. 1987-Aug. 1987	Economist, Old Dominion Electric Cooperative, Richmond, Virginia
May 1984-Jan. 1987	Staff Economist, Technical Associates, Inc.
May 1982-May 1984	Economic Analyst, Technical Associates, Inc.
Sep. 1980-May 1982	Research Assistant, Technical Associates, Inc.

EXPERIENCE

I. Public Utility Regulation

A. Costing Studies -- Conducted, and presented as expert testimony, numerous embedded and marginal cost of service studies. Cost studies have been conducted for electric, gas, telecommunications, water, and wastewater utilities. Analyses and issues have included the evaluation and development of alternative cost allocation methods with particular emphasis on ratemaking implications of distribution plant classification and capacity cost allocation methodologies. Distribution plant classifications have been conducted using the minimum system and zero-intercept methods. Capacity cost allocations have been evaluated using virtually every recognized method of allocating demand related costs (e.g., single and multiple coincident peaks, non-coincident peaks, probability of loss of load, average and excess, and peak and average).

Embedded and marginal cost studies have been analyzed with respect to the seasonal and diurnal distribution of system energy and demand costs, as well as cost effective approaches to incorporating energy and demand losses for rate design purposes. Economic dispatch models have been evaluated to determine long range capacity requirements as well as system marginal energy costs for ratemaking purposes.

B. Rate Design Studies -- Analyzed, designed and provided expert testimony relating to rate structures for all retail rate classes, employing embedded and marginal cost studies. These rate structures have included flat rates, declining block rates, inverted block rates, hours use of demand blocking, lighting rates, and interruptible rates. Economic development and special industrial rates have been developed in recognition of the competitive environment for specific customers. Assessed alternative time differentiated rates with diurnal and seasonal pricing structures. Applied Ramsey (Inverse Elasticity) Pricing to marginal costs in order to adjust for embedded revenue requirement constraints.

GLENN A. WATKINS

C. Forecasting and System Profile Studies -- Development of long range energy (Kwh or Mcf) and demand forecasts for rural electric cooperatives and investor owned utilities. Analysis of electric plant operating characteristics for the determination of the most efficient dispatch of generating units on a system-wide basis. Factors analyzed include system load requirements, unit generating capacities, planned and unplanned outages, marginal energy costs, long term purchased capacity and energy costs, and short term power interchange agreements.

D. Cost of Capital Studies -- Analyzed and provided expert testimony on the costs of capital and proper capital structures for ratemaking purposes, for electric, gas, telephone, water, and wastewater utilities. Costs of capital have been applied to both actual and hypothetical capital structures. Cost of equity studies have employed comparable earnings, DCF, and CAPM analyses. Econometric analyses of adjustments required to electric utilities cost of equity due to the reduced risks of completing and placing new nuclear generating units into service.

E. Accounting Studies -- Performed and provided expert testimony for numerous accounting studies relating to revenue requirements and cost of service. Assignments have included original cost studies, cost of reproduction new studies, depreciation studies, lead-lag studies, Weather normalization studies, merger and acquisition issues and other rate base and operating income adjustments.

II. Transportation Regulation

A. Oil and Products Pipelines -- Conducted cost of service studies utilizing embedded costs, I.C.C. Valuation, and trended original cost. Development of computer models for cost of service studies utilizing the "Williams" (FERC 154-B) methodology. Performed alternative tariff designs, and dismantlement and restoration studies.

B. Railroads -- Analyses of costing studies using both embedded and marginal cost methodologies. Analyses of market dominance and cross-subsidization, including the implementation of differential pricing and inverse elasticity for various railroad commodities. Analyses of capital and operation costs required to operate "stand alone" railroads. Conducted cost of capital and revenue adequacy studies of railroads.

III. Insurance Studies

Conducted and presented expert testimony relating to market structure, performance, and profitability by line and sub-line of business within specific geographic areas, e.g. by state. These studies have included the determination of rates of return on Statutory Surplus and GAAP Equity by line - by state using the NAIC methodology, and comparison of individual insurance company performance vis a vis industry Country-Wide performance.

Conducted and presented expert testimony relating to rate regulation of workers compensation, automobile, and professional malpractice insurance. These studies have included the determination of a proper profit and contingency factor utilizing an internal rate of return methodology, the development of a fair investment income rate, capital structure, cost of capital.

Other insurance studies have included testimony before the Virginia Legislature regarding proper regulatory structure of Credit Life and P&C insurance; the effects on competition and prices resulting from proposed insurance company mergers, maximum and minimum expense multiplier limits, determination of specific class code rate increase limits (swing limits); and investigation of the reasonableness of NCCI's administrative assigned risk plan and pool expenses.

GLENN A. WATKINS

IV. Anti-Trust and Commercial Business Damage Litigation

Analyses of alleged claims of attempts to monopolize, predatory pricing, unfair trade practices and economic losses. Assignments have involved definitions of relevant market areas(geographic and product) and performance of that market, the pricing and cost allocation practices of manufacturers, and the economic performance of manufacturers' distributors.

Performed and provided expert testimony relating to market impacts involving automobile and truck dealerships, incremental profitability, the present value of damages, diminution in value of business, market and dealer performance, future sales potential, optimal inventory levels, fair allocation of products, financial performance; and business valuations.

MEMBERSHIPS AND CERTIFICATIONS

Member, Association of Energy Engineers (1998)
Certified Rate of Return Analyst, Society of Utility and Regulatory Financial Analysts (1992)
Member, American Water Works Association
National Association of Business Economists
Richmond Association of Business Economists
National Economics Honor Society

EXPERT TESTIMONY
PROVIDED BY
GLENN A. WATKINS

YEAR	CASE NAME	JURISDICTION	DOCKET NO.	SUBJECT OF TESTIMONY
1985	SAVANNAH ELECT. & PWR CO.	GA. PSC	3523U	SALES FORECAST, RATE DESIGN ISSUES
1990	CENTRAL MAINE PWR CO.	ME. PUC	89-68	MARGINAL COST OF SERVICE
1990	COMMONWEALTH GAS SERVICES (Columbia Gas)	VA. SCC	PUE900034	CLASS COST OF SERVICE
1990	WARNER FRUEHAUF	U.S. BANKRUPTCY CT.	n/a	VALUE OF STOCK, COST OF CAPITAL
1991	W. VA. WATER	WVA PSC	91-140-W-42T	RATE DESIGN
1992	S.C. WORKERS COMPENSATION	SC DEPT OF INSUR	92-034	INTERNAL RATE OF RETURN
1992	GRASS v. ATLAS PLUMBING, et.al.	RICHMOND CIRCUT CT	n/a	DAMAGES, BREACH OF COVENANT NOT TO COMPETE (PROFFERED TEST)
1992	VIRGINIA NATURAL GAS	VA SCC	PUE920031	JURISDICTIONAL & CLASS COST OF SERVICE
1992	ALLSTATE INSURANCE COMPANY (DIRECT)	N.J. DEPT OF INSUR	INS 06174-92	COST ALLOCATIONS, PROFITABILITY
1992	ALLSTATE INSURANCE COMPANY (REBUTTAL)	N.J. DEPT OF INSUR	INS 06174-92	COST ALLOCATIONS, PROFITABILITY
1993	MOUNTAIN FORD v FORD MOTOR COMPANY	FEDERAL DISTRICT CT	n/a	VEHICLE ALLOCATIONS, INVENTORY LEVELS, INCREMENTAL PROFIT, & DAMAGES
1993	SOUTH WEST GAS CO.	AZ. CORP COMM	U-1551-92-253	DIRECT: CLASS COST ALLOCATIONS
1993	SOUTH WEST GAS CO.	AZ. CORP COMM	U-1551-92-253	SURREBUTTAL: CLASS COST ALLOCATIONS
1993	POTOMAC EDISON CO.	VA. SCC	PUE930033	COST ALLOCATIONS,RATE DESIGN
1995	VIRGINIA AMERICAN WATER CO.	VA. SCC	PUE950003	JURISDICTIONAL ALLOCATIONS
1995	NEW JERSEY AMERICAN WATER COMPANY	N.J. B.P.U.	WR95040165	COST ALLOCATIONS,RATE DESIGN
1995	PIEDMONT NATURAL GAS COMPANY	S.C. P.S.C.	95-715-G	COST ALLOCATIONS,RATE DESIGN,WEATHER NORMALIZATION
1995	CYCLE WORLD v. HONDA MOTOR CO.	VA. DMV	None	MARKET PERFORMANCE, FINANCIAL IMPACT OF NEW DEALER
1996	HOUSE BILL # 1513	VA. GEN'L ASSEMBLY	N/A	WATER / WASTEWATER CONNECTION FEES
1996	VIRGINIA AMERICAN WATER CO.	VA. SCC	PUE950003	JURISDICTIONAL ALLOCATIONS
1996	ELIZABETHTOWN WATER CO.	N.J. B.P.U.	WR95110557	COST ALLOCATIONS,RATE DESIGN
1996	ELIZABETHTOWN WATER CO.	N.J. B.P.U.	WR95110557	SURREBUTTAL COST ALLOCATIONS,RATE DESIGN
1996	SOUTH JERSEY GAS CO.	N.J. B.P.U.	GR96010032	CLASS COST OF SERVICE
1996	VIRGINIA LIABILITY INSURANCE COMPETITION	VA. SCC	INS960164	COST ALLOCATIONS, INSURANCE PROFITABILITY
1996	SOUTH JERSEY GAS CO.	N.J. B.P.U.	GR96010032	REBUTTAL - CLASS COST OF SERVICE
1996	HOUSE BILL # 1513	VA. GEN'L ASSEMBLY	N/A	WATER / WASTEWATER CONNECTION FEES
1997	NISSAN v. CRUMPLER NISSAN	VA. DMV	None	MARKET DETERMINATION & PERFORMANCE
1997	PHILADELPHIA SUBURBAN WATER CO. (DIRECT)	PA. PUC	R-00973952	COST ALLOCATIONS,RATE DESIGN,RATE DISCOUNTS
1997	PHILADELPHIA SUBURBAN WATER CO. (REBUTTAL)	PA. PUC	R-00973952	COST ALLOCATIONS,RATE DESIGN,RATE DISCOUNTS
1997	PHILADELPHIA SUBURBAN WATER CO. (SURREBUTTA	PA. PUC	R-00973952	COST ALLOCATIONS,RATE DESIGN,RATE DISCOUNTS
1997	VIRGINIA AMERICAN WATER CO.	VA. SCC	PUE970523	JURISDICTIONAL/CLASS ALLOCATIONS
1998	VIRGINIA ELECTRIC POWER COMPANY	VA. SCC	PUE960296	CLASS COST OF SERVICE and TIME DIFFERENTIATED FUEL COSTS
1998	NEW JERSEY AMERICAN WATER COMPANY	N.J. B.P.U.	WR98010015	CLASS COST OF SERVICE,RATE DESIGN, REVENUES
1998	AMERICAN ELECTRIC POWER COMPANY	VA. SCC	PUE960296	CLASS COST OF SERVICE and TIME DIFFERENTIATED FUEL COSTS
1998	FREEMAN WRONGFUL DEATH	FfEDERAL DISTRICT CT.		LOST INCOME, WORK EXPECTANCY
1998	EASTERN MAINE ELECTRIC COOPERATIVE	MAINE PUC	98-596	REVENUE REQUIREMENT
1998	CREDIT LIFE/AH RATE FILING	VA. SCC		PRIMA FACIA RATES, LEVEL OF COMPETITION
1999	CREDIT LIFE & A&H LEGISLATION	VA. GEN'L ASSEMBLY	N/A	COST ALLOCATIONS, INSURANCE PROFITABILITY
1999	MILLER VOLKSWAGEN v. VOLKSWAGEN oF AMERICA	VA. DMV	None	VEHICLE ALLOCATIONS/CSI
1999	COLUMBIA GAS of VIRGINIA	VA. SCC	PUE980287	RATE STRUCTURE
1999	NCCI (WORKERS COMPENSATION INSURANCE)	VA. SCC	INS990165	WORKERS COMPENSATION RATES
1999	ROANOKE GAS	VA. SCC	PUE980626	Rate Design/ Weather Norm
2000	PERSON-SMITH v. DOMINION REALITY	RICHMOND CIRCUIT	n/a	LOST INCOME
2000	CREDIT LIFE/AH RATE FILING	VA. SCC		PRIMA FACIA RATES, LEVEL OF COMPETITION
2000	UNITED CITIES GAS	VA. SCC		Cost Allocations/ Rate Design
2001	VERMONT WORKERS COMPENSATION RATE CASE	VT. INSURANCE COMM.	n/a	WORKERS COMPENSATION RATES
2001	SERRA CHEVROLET v. GENERAL MOTORS CORP.	ALABAMA CIRCUIT CT.	98-2089	ECONOMIC DAMAGES
2001	VIRGINIA POWER ELECTRIC RESTRUCTURING	VA. SCC	PUE000584	RATE Design (UNBUNDLING)
2001	AMERICAN ELECTRIC POWER RESTRUCTURING	VA. SCC	PUE010011	RATE Design (UNBUNDLING)
2001	NCCI (WORKERS COMPENSATION INSURANCE)	VA. SCC	INS010190	WORKERS COMPENSATION RATES
2002	PHILADELPHIA SUBURBAN WATER CO. (DIRECT)	PA. PUC	R00016750	COST ALLOCATIONS AND RATE DESIGN
2002	HAROLD MORRIS PERSONAL INJURY	FED. DIST CT (RICHMOND)	n/a	LOST WAGES
2002	PIEDMONT NATURAL GAS	S.C. PSC	2002-63-G	REVENUE RQMT, COST OF CAPITAL
2002	VIRGINIA AMERICAN WATER COMPANY	VA. SCC	PUE-2002-00375	JURISDICTIONAL/CLASS ALLOCATIONS
2002	ROANOKE GAS COMPANY	VA. SCC	PUE-2002-00373	WEATHER NORMALIZATION RIDER
2002	SOUTH CAROLINA ELECTRIC & GAS (ELECTRIC)	S.C. PSC	2002-223-E	REVENUE RQMT.

EXPERT TESTIMONY
PROVIDED BY
GLENN A. WATKINS

YEAR	CASE NAME	JURISDICTION	DOCKET NO.	SUBJECT OF TESTIMONY
2003	NCCI (WORKERS COMPENSATION INSURANCE)	VA. SCC	INS-2003-00157	WORKERS COMPENSATION RATES
2003	CREDIT LIFE/AH RATE FILING	VA. SCC		PRIMA FACIA RATES, LEVEL OF COMPETITION
2003	ROANOKE GAS	VA. SCC	PUE-2003-00425	WEATHER NORMALIZATION ADJUSTMENT RIDER
2003	SOUTHWESTERN VIRGINIA GAS CO.	VA. SCC	PUE-2003-00426	WEATHER NORMALIZATION ADJUSTMENT RIDER
2004	SOUTH CAROLINA PIPELINE COMPANY	S.C. PSC	2004-6-G	COST OF GAS AND INTERUPT. SALES PROGRAM
2004	VIRGINIA AMERICAN WATER COMPANY	VA. SCC	PUE-2003-00539	JURISDICTIONAL/CLASS ALLOCATIONS
2004	SCE&G FUEL CONTRACT	S.C. PSC	2004-126-E	GAS CONTRACT FOR COMBINED CYCLE PLANT
2004	WASHINGTON GAS LIGHT	VA. SCC	PUE-2003-00603	RATE DESIGN/ WNA RIDER
2004	ATMOS ENERGY	VA. SCC	PUE-2003-00507	RATE DESIGN/ WNA RIDER
2004	SCE&G RATE CASE (ELECTRIC)	S.C. PSC	2004-178-E	COST OF CAPITAL/ REV RQMT.
2004	MEDICAL MALPRACTICE LEGISLATION	VA. GENERAL ASSEMBLY	N/A	INDUSTRY RESTRUTURE/ PROFITABILITY
2004	ATLAS HONDA v. HONDA MOTOR CO.	VA. DMV	None	NEW DEALER PROTEST
2004	NCCI (WORKERS COMPENSATION INSURANCE)	VA. SCC	INS-2004-00124	WORKERS COMPENSATION RATES
2004	NATIONAL FUEL GAS DISTRIBUTION	PA. PUC	R00049656	COST ALLOCATIONS/ RATE DESIGN
2005	WASHINGTON GAS LIGHT	VA SCC	PUE-2005-00010	WEATHER NORMALIZATION ADJUSTMENT RIDER
2005	Serra Chevrolet	US Federal Ct.	CV-01-P-2682-S	Dealer incremental profits and costs
2005	NEWTOWN ARTESIAN WATER	PA. PUC		REV. RQMT./ RATE STRUCTURE
2005	CITY OF BETHLEHEM WATER RATE CASE	PA. PUC		REV. RQMT./ RATE STRUCTURE
2005	NCCI (WORKERS COMPENSATION INSURANCE)	VA SCC	INS-2005-00159	WORKERS COMPENSATION RATES
2005	Virginia Natural Gas	VA SCC	PUE-2005-00057	Revenue Requirement/ Alt. Regulation Plan
2006	Olathe Hyundai v. Hyundai Motors of America	KS DMV	None	Dealer impact analysis
2006	Virginia Credit Life & A&H Prima Facia Rates	VA SCC	INS-2006-00013	Market Structure
2006	Columbia Gas of Virginia	VA SCC	PUE-2005-00098	Revenue Requirements/ Alt. Regulation Plan
2006	PPL Gas	PA. PUC	R-00061398	COST ALLOCATIONS/ RATE DESIGN
2006	NCCI (WORKERS COMPENSATION INSURANCE)	VA SCC	INS-2006-00197	WORKERS COMPENSATION RATES
2007	Level of Private Pass. Auto Competition	Ma. Dept of Insur	N/A	Private Pass Auto level of competition
2007	WASHINGTON GAS LIGHT	VA SCC	PUE-2006-00059	Cost Allocations/ Rate Design/ Alt Regulation Plan
2007	Valley Energy	PA. PUC	R-00072349	Cost of Capital/Rate Design
2007	Wellsboro Electric	PA. PUC	R-00072350	Cost of Capital/Rate Design
2007	Citizens' Electric Of Lewisburg, Pa	PA. PUC	R-00072348	Cost of Capital/Rate Design
2007	NCCI (WORKERS COMPENSATION INSURANCE)	VA SCC	INS-2007-00224	WORKERS COMPENSATION RATES
2007	Georgia Power	Ga.PSC	25060-U	Cost Allocations/Rate Design
2008	Columbia Gas of Pennsylvania	PA. PUC	R-2008-2011621	COST ALLOCATIONS/ RATE DESIGN
2008	Greenway Toll Road Investigation	VA. GENERAL ASSEMBLY	N/A	Affiliate Transactions
2008	Puget Sound Energy (Electric)	Wa. UTC	UE-072300	Cost Allocations/Rate Design
2008	Puget Sound Energy (Gas)	Wa. UTC	UE-072301	Cost Allocations/Rate Design
2008	Blue Grass Electric Cooperative	Ky PSC	2008-00011	Cost Allocations/Rate Design
2008	Columbia Gas of Ohio	OH PUC	08-72-GA-AIR, et. al	Cost Allocations/Rate Design
2008	Virginia Natural Gas	Va SCC	PUE-2008-00060	Natl Gas Conservation/ Revenue Decoupling
2008	Equitable Natural Gas	PA. PUC	R-2008-2029325	Cost Allocations/Rate Design/ Discounted Rates
2008	LG&E (Electric)	Ky PSC	2008-000252	Cost Allocations/Rate Design/ Weather Normalization
2008	LG&E (Natural Gas)	Ky PSC	2008-000252	Cost Allocations/Rate Design
2008	Kentucky Utilities	Ky PSC	2008-00251	Cost Allocations/Rate Design/ Weather Normalization
2008	Pike County Natural Gas	PA. PUC	R-2008-2046520	Cost Allocations/Rate Design
2008	Pike County Electric	PA. PUC	R-2008-2046518	Cost Allocations/Rate Design
2008	Newtown Artesian Water	PA. PUC	R-2008-2042293	Revenue Requirement
2009	Leesburg Water & Sewer	Va. Circuit Ct.	Civil Action 42736	Revenue Requirement/ Excess Rates
2009	Central Penn Gas, Inc.	PA. PUC	R-02008-2079675	Cost Allocation/Rate Design
2009	Penn Natural Gas, Inc.	PA. PUC	R-2008-2079660	Cost Allocation/Rate Design
2009	Credit Life/ A&H ratemaking	Va. SCC	n/a	Market Structure and Availability
2009	Fairfax County v. City of Falls Church Virginia	Fairfax Circuit Ct. (Va.)	CL-2008-16114	Water Revenue Requirement
2009	Avista Utilities (Electric)	Wa. UTC	UE-090134	Electric rate Design
2009	Avista Utilities (Gas)	Wa. UTC	UE-090135	Gas Rate design
2009	Columbia Gas of Kentuky	Ky PSC	2009-00141	Cost Allocations/Rate Design
2009	NCCI (Workers Compensation Rates)	VA SCC	INS-2009-00142	Workers Compensation Rates
2009	Duke Energy of Kentucky (Gas)	Ky. PSC	2009-00202	Rate Design

EXPERT TESTIMONY
PROVIDED BY
GLENN A. WATKINS

YEAR	CASE NAME	JURISDICTION	DOCKET NO.	SUBJECT OF TESTIMONY
2009	Duke Energy Carolinas (Electric)	NC UC	E-7 Sub 909	Cost Allocations/Rate Design
2009	PacifiCorp	Wa. UTC	UE-090205	Rate Design/Low Income
2009	Puget Sound Energy (Electric)	Wa. UTC	UE-090704	Cost Allocations/Rate Design
2009	Puget Sound Energy (Gas)	Wa. UTC	UG-090705	Cost Allocations/Rate Design
2009	United Water of Pennsylvania	PA PUC	2009-212287	Cost Allocations/Rate Design
2010	Aqua Virginia, Inc.	VA SCC	PUE-2009-00059	Rate Design
2010	Kentucky Utilities	Ky PSC	2009-00548	Cost Allocations/Rate Design/ Weather Normalization
2010	LG&E (Electric)	Ky PSC	2009-00549	Cost Allocations/Rate Design
2010	LG&E (Natural Gas)	Ky PSC	2009-00549	Cost Allocations/Rate Design/ Weather Normalization
2010	Philadelphia Gas Works	PA PUC	2009-2139884	Cost Allocations/Rate Design
2010	Columbia Gas of Pennsylvania	PA PUC	2009-2149262	Cost Allocations/Rate Design
2010	PPL Electric Company	PA PUC	2010-2161694	Cost Allocations/Rate Design
2010	York Water Company	PA PUC	2010-2157140	Cost Allocations/Rate Design
2010	Valley Energy, Inc.	PA PUC	2010-2174470	Cost of Capital/Revenue Requirement/Rate Design
2010	NCCI (WORKERS COMPENSATION INSURANCE)	VA SCC	INS-2010-00126	WORKERS COMPENSATION RATES
2010	Columbia Gas of Virginia	VA SCC	PUE-2010-00017	Cost of Capital/Revenue Requirement/Rate Design
2010	Georgia Power Company	GA PSC	Docket No. 31958	Cost Allocations/Rate Design
2010	City of Lancaster, Bureau of Water	PA PUC	R-2010-2179103	Cost of Capital
2011	Columbia Gas of Pennsylvania	PA PUC	R-2010-2215623	Cost Allocations/Rate Design
2011	Owen Electric Cooperative	KY PSC	PUE-2011-00037	Rate Design
2011	Virginia Natural Gas	VA SCC	PUE-2010-00142	Pipeline Prudency/Cost Allocations/Rate Design
2011	United Water of Pennsylvania	PA PUC	2011-2232985	Cost Allocations/Rate Design
2011	PPL Electric Company (Remand)	PA PUC	2010-2161694	Negotiated Industrial Rate
2011	NCCI (WORKERS COMPENSATION INSURANCE)	VA SCC	2011-00163	WORKERS COMPENSATION RATES
2011	Artesian Water Company, Inc.	DE PSC	PSC 11-207	Cost Allocations/Rate Design

Note: Does not include Expert Reports submitted to Courts or Regulatory agencies in which cases that settled prior to testimony.
Testimony prior to 2003 may be incomplete.

Assured and Adequate Water Supply 101

Office of Assured and Adequate Water Supply

Arizona Department of Water Resources

http://www.azwater.gov

- A wealth of water resource information at your fingertips...

- Fees
- Notices of Public Meetings
- Registered Wells (55) - Find Your Well
- Contact Us!
- Your ADWR "Web Site Directory"
- **Hot Topics**
  - Preparation for Flooding Begins Immediately Following Wallow Fire
  - June 16th - Assured and Adequate Water Supply 101 Seminar
  - Proposed Transfer of 50 Acre-Feet of Arizona Colorado River Entitlement
  - Restoration of Extinguished Grandfathered Rights Rule Proposal
  - Just Released: Final AMA Demand and Supply Assessment
  - New Fee Rules To Become Effective June 4, 2011
  - WRDC InfoShare Site
  - Water Resource Development Commission (HB2661)
  - Assured and Adequate Water Supply (AAWS) Web Application
  - Upper San Pedro Water District
  - Blue Ribbon Panel on Water Sustainability
- Groundwater Site Inventory (GWSI)

Adequate Water Supply Program Background

- Statewide Water Adequacy statute passed in 1973
- Done in response to incidents of land fraud involving the sale of subdivided lots without available water
- It only required disclosure of water availability (as determined by the state) but did not prevent the sale of lots without available water
- Existing Water Adequacy (or "Inadequacy") requirements are still in effect for areas outside of Active Management Areas (AMAs) except those jurisdictions that have adopted adequacy requirements pursuant to SB 1575

Assured Water Supply Program Background

- The program is an integral component of Arizona's 1980 Groundwater Code, which was designed to address severe groundwater level decline rates in major urban and agricultural areas called Active Management Areas.
- The Assured Water Supply Program only applies to the Active Management Areas.
- Regulations mandate the demonstration of 100 year water supplies for new subdivisions.
- Is more restrictive than the Adequacy Program

Assured Water Supply Program Purpose

To sustain the State's economic health by preserving groundwater resources and promoting long-term water supply planning.

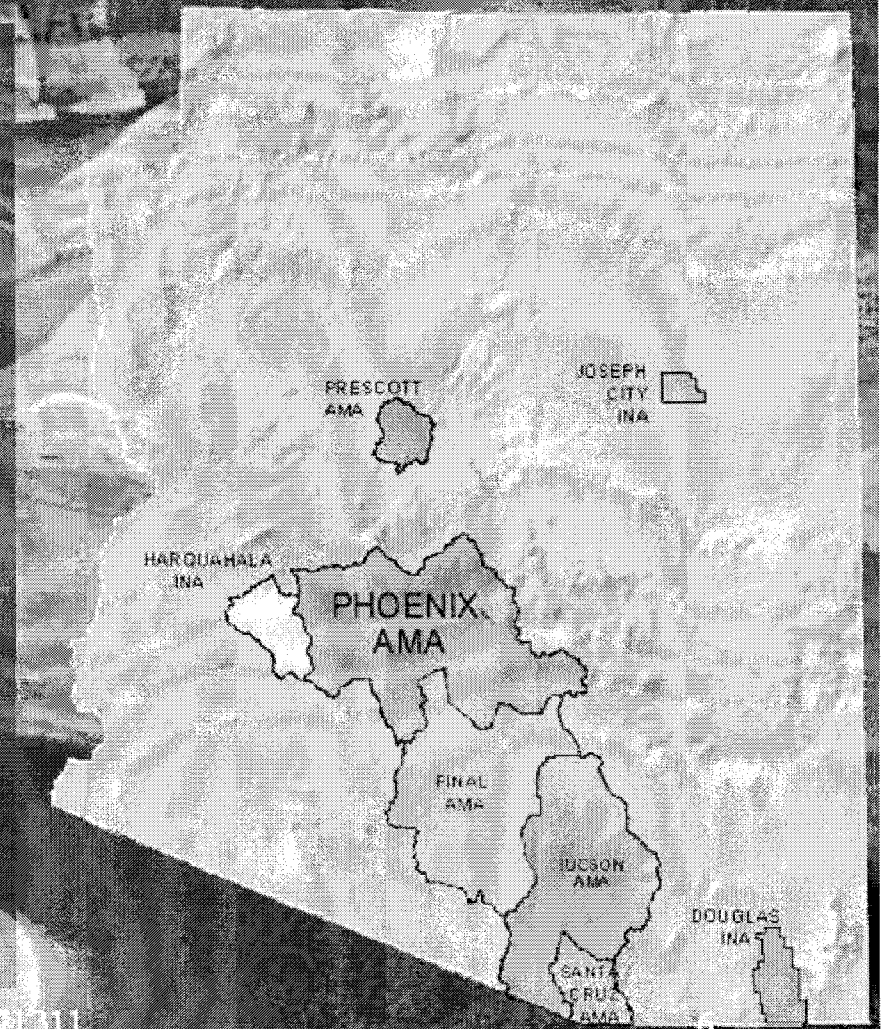
Adequate Water Supply Program Purpose

Consumer advisory measure – developers are required to disclose "inadequacy" only to first buyer. The purpose changed with SB 1575 – a jurisdiction can now require adequacy.

Active Management Areas

Areas which experienced the most significant depletion of groundwater

- Established 4 (now 5) Active Management Areas
  - Phoenix (1980)
  - Pinal (1980)
  - Prescott (1980)
  - Tucson (1980)
  - Santa Cruz (1994 – formerly part of Tucson AMA
- Established 3 Irrigation Non-Expansion Areas



Subdivision Requirements for Assured or Adequate Water Supply

- An assured or adequate (or inadequate) water supply determination by ADWR is required for the following:
  - To gain approval of a subdivision plat by cities, towns and counties.
  - To obtain authorization to sell lots from the Department of Real Estate (subdivision public report).

Subdivision Requirements for Assured or Adequate Water Supply

- A subdivision is defined as land divided into six or more parcels where at least one parcel is less than 36 acres, which is offered for sale or lease for more than one year
- Short-term leases (12 months or less) and subdivisions where all parcels are greater than 36 acres in size do not fall under this definition.
- Applies to residential AND commercial subdivisions.

Assured and Adequate Water Supply Application Types

Assured Program (Inside AMAs)

- **Designated Provider** Designation of Assured Water Supply for centralized delivery systems.
- **Physical Availability Demonstration** (PAD) for the provider. Developers do not apply for PADs.
- **Analysis of Assured Water Supply** For Master Planned Communities reserves water for 10 years plus 2 five year extensions. Most choose to demonstrate physical availability only. Will need Certificate to sell lots. Preliminary general use plan not specific plat.
- **Certificate of Assured Water Supply** Any development that is not served by a designated provider will require a certificate application. Must have a Certificate to subdivide and sell. (Tentative or Preliminary Plat)

Assured and Adequate Water Supply Application Types

Adequacy Program (Outside AMAs)

- **Designated Provider** Designation of Adequate Water Supply for centralized delivery systems
- **Physical Availability Demonstration** (PAD) for centralized providers. Developers do not apply for PADs.
- **Analysis of Adequate Water Supply** For Master Planned Communities reserves water for 10 years plus 2 five year extensions. Most choose to demonstrate physical availability only. Will need Water Adequacy Report to sell lots. Preliminary general use plan not specific plat.
- **Water Adequacy Report** Any development that is not served by a designated provider will require a Water Report to subdivide and sell. Even if inadequate, they can still subdivide and sell (except in mandatory adequacy jurisdictions) but it must be disclosed in the public report. (Tentative or Preliminary Plat).

To obtain an Assured or Adequate Water Supply 5 criteria must be met:

1. Physical availability for 100 years
2. Continuous availability for 100 years
3. Legal availability for 100 years
4. Water quality
5. Financial capability

Assured Water Supply must meet 2 additional criteria:

6. Consistency with AMA Management Goal
7. Consistency with AMA Management Plan

How to meet the criteria:

1. Physical availability – typically demonstrated through a new hydrologic study unless a valid study for the area has already been approved by ADWR. Sources may include groundwater, surface water or effluent.

Physical Availability of Groundwater

- Must consider current and committed demand.
- Inside the Phoenix, Tucson and Prescott AMAs, the depth to water after one-hundred years cannot exceed 1,000 feet.
- Inside the Pinal AMA, the depth to water cannot exceed 1,100 feet.
- The depth to water requirements have not yet been established by rule in the Santa Cruz AMA. ADWR policy is 1,000 feet.
- Outside AMAs, the depth to water cannot exceed 1,200 feet, except with specific exemption (hardrock aquifer & financial capability)
- The depth to water after one-hundred years cannot exceed 400 feet for dry lot subdivisions.

Physical Availability of Surface Water

- Allocation to a Right Holder:
  (via Salt River Project and/or CAP for example)
- Non- Allocation Sources:
  120% of Firm Yield or 100% of Median Flow based on 20 years of data
- Firm Yield: The minimum annual diversion for the period of record which may include run off and releases from storage reservoirs.
- Median Flow: The flow which is represented by the middle value of a set of flow data which are ranked in order of magnitude.

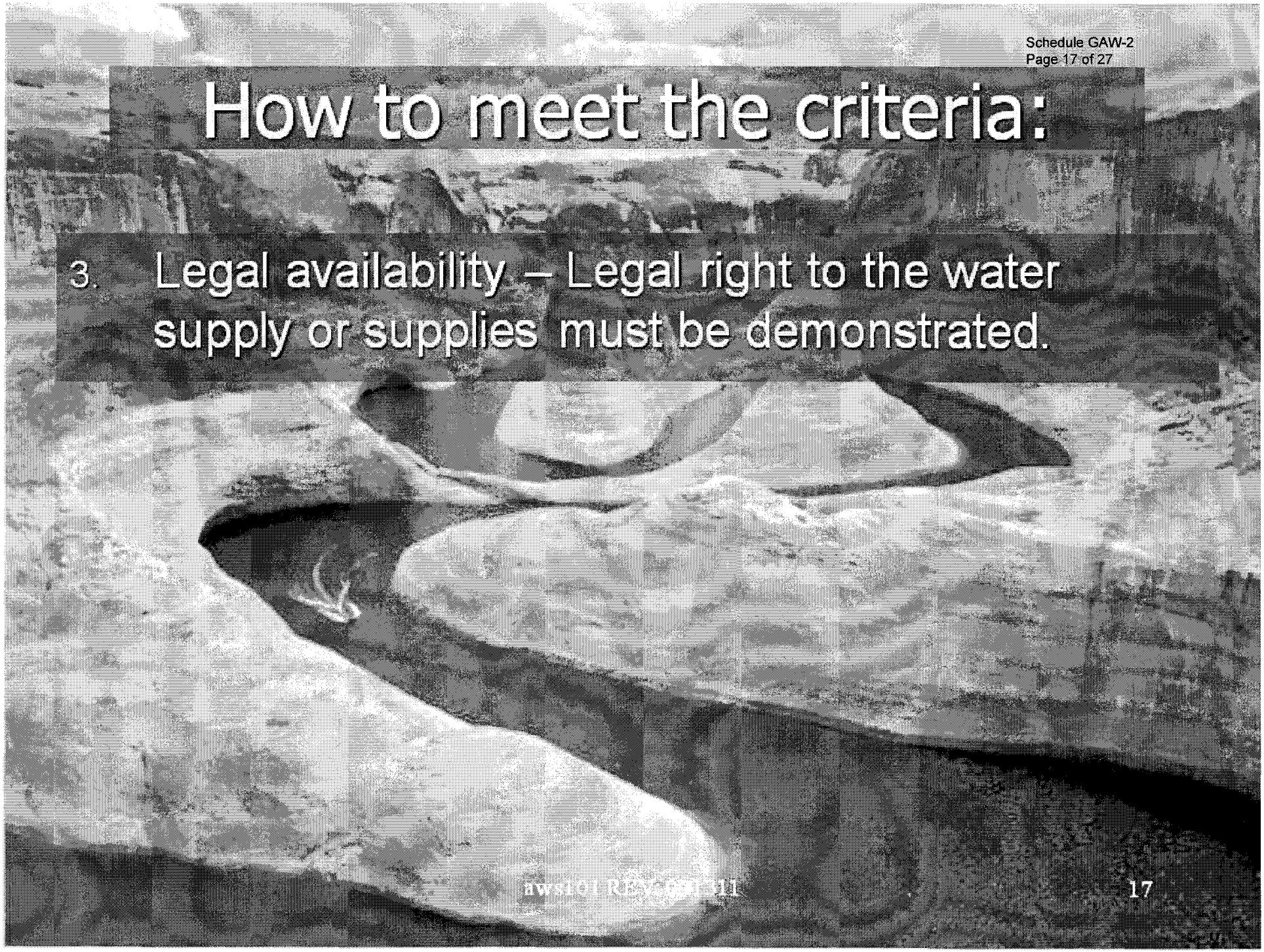
How to meet the criteria:

2. Continuous availability:
   - Groundwater is considered continuously available
- Surface Water

Proof of Adequate back up supplies:
- Artificial Storage (Lakes, Tanks)
- Recharge/Recovery
- Backup supply (groundwater)
- Drought Response Plan

How to meet the criteria:

3. Legal availability – Legal right to the water supply or supplies must be demonstrated.



Legal Availability of Groundwater

- Service Area right
- Certificate of Convenience & Necessity (CC&N)
- Establishing Service Area Right
  - Type I
  - Type II
  - Recovery Well

Volume must meet first year build out demand plus any committed demand for provider.

Legal Availability of Surface Water

- Allocation to a Right Holder:
  (via Salt River Project and/or CAP for example)
- Non Allocation:
  - Certificated Right
  - Decreed Right
  - Pre- 1919 Claim
  - Proof of Non-abandonment

  Volume taken at face value of claim.

How to meet the criteria:

4. Water Quality
   - Must meet ADEQ – Safe Drinking Water Act Requirements (SDWA) Existing providers with PWS are assumed to be in compliance.
   - Will look at future migration of known groundwater contamination plumes, i.e. WQARF, Superfund sites.
   - Dry Lots and New Service Areas must submit sample results that pass SDWA- "new source approval".

How to meet the criteria:

5. Financial Capability
   - Adequate delivery, storage and treatment works must either be in place or financed.
   - Acceptable to use a qualified platting authority otherwise applicant must demonstrate financial capability on their own.

How to meet the criteria:

1. Consistency with AMA Management Goal

Safe Yield Definition

A groundwater management goal which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial groundwater recharge in the active management area

Methods of Meeting Goal Requirement

- Use of renewable supplies
  - Surface water
  - Effluent
  - Can be direct use or storage and recovery
- Membership in the Central Arizona Groundwater Replenishment District
- Dry lot subdivisions of less than 20 lots are exempt

Central Arizona Groundwater Replenishment District (CAGRD)

- A mechanism for new subdivisions within an AMA to meet the goal requirement
- The CAGRD acquires renewable supplies to replace groundwater pumped by its members
- The replacement water is then recharged into aquifers within the AMA
- This results in less depletion of groundwater

How to meet the criteria:

7. Consistency with AMA Management Plan

- Only required for subdivisions with more than 50 lots.
- Simple conservation measures:
  - Low flow plumbing, limit turf use, etc.
  - Use of ADWR's low water use plant list for ROW & common areas.

Office of Assured and Adequate Water Supply

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THANK YOU

ARIZONA-AMERICAN WATER - AGUA FRIA DISTRICT
DETERMINATION OF WATER SUPPLY RESERVE MARGIN
(SUMMARY)

	Rated Capacity			Effective Capacity		
	Rated Capacity (MGD)	Coincident Peak Day (MGD)	Reserve Margin	Effective Capacity (MGD)	Coincident Peak Day (MGD)	Reserve Margin
I. Distribution System Connected to White Tanks:						
Including White Tanks	42.61	14.87	187%	40.98	14.87	176%
Excluding White Tanks	22.61	14.87	52%	20.98	14.87	41%
II. Distribution System Not Interconnected:						
Plant 1	6.62	2.84	133%	6.01	2.84	112%
Plant 2	6.91	2.04	239%	6.34	2.04	211%
Plant 3	6.53	5.42	20%	5.92	5.42	9.3%
Well 11.2	1.27	0.79	60%	1.28	0.79	62%
Well 14.3	0.82	0.40	105%	0.88	0.40	120%
N.E. Agua Fria	3.74	2.70	39%	3.74	2.70	39%
III. Total Agua Fria If All Were Interconnected:						
Including White Tanks	**68.50**	**25.24** 1/	**173%**	**65.15**	**25.24** 1/	**158%**
Excluding White Tanks	**48.50**	**25.24** 1/	**92%**	**45.15**	**25.24** 1/	**79%**

1/ Peak day production for total consolidated Agua Fria (July 8, 2011).

Source: Per Pages 2 and 3 unless otherwise noted.

ARIZONA-AMERICAN WATER - AGUA FRIA DISTRICT
DETERMINATION OF WATER SUPPLY RESERVE MARGIN
(WATER PLANTS CONNECTED TO WHITE TANKS FACILITY) 1/

	Rated Capacity					Effective Capacity		
	Well	Rated Pump Yield (GPM) 2/	Rated Capacity (MGD)	Coincident Peak Day (MGD) 3/	Reserve Margin	Effective Pump Yield (GPM)	Effective Capacity (MGD) 4/	Reserve Margin
Plant 4:								
	4.1	1,200	1.73			850	1.22	
	4.2	800	1.15			884	1.27	
	4.3	888	1.28			916	1.32	
	4.4	1,348	1.94			698	1.01	
	4.5	990	1.43			815	1.17	
	4.6	514	0.74			759	1.09	
	4.7	1,000	1.44			837	1.21	
	AFTL 1	500	0.72			504	0.73	
	AFTL 3	720	1.04			568	0.82	
	AFTL 4	600	0.86			600	0.86	
	MWD 7.22	1,017	1.46			1017	1.46 5/	
Plant 5:								
	5.1	800	1.15			632	0.91	
	5.2	600	0.86			600	0.86	
	5.3	800	1.15			890	1.28	
Plant 8:								
	8.1	400	0.58			274	0.39	
	8.2	540	0.78			759	1.09	
	8.3	240	0.35			249	0.36	
	MWD 610C	897	1.29			897	1.29 5/	
Plant 9 & 10:								
	9.1	320	0.46			327	0.47	
	9.2	500	0.72			448	0.65	
	9.3	530	0.76			494	0.71	
	9.4	500	0.72			550	0.79	
White Tanks Plant			20.00				20.00	
Total w/ White Tanks			**42.61**	**14.87**	**187%**		**40.98**	**176%**
Total w/o White Tanks			**22.61**	**14.87**	**52%**		**20.98**	**41%**

1/ Connection to WTWTP: Responses to Staff 7.6 and 12.3.

2/ Capacity: Response to Sun City Grand 8.24 and Company Filing: Other Filing Requirements, Section 2.

3/ Based on period October 1, 2010 through September 30, 2011, per Company response to Sun City Grand Data Request No. 8.19.

4/ Per Company response to Sun City Grand Data Request No. 9.8.

5/ Effective capacity not provided in response to Sun City Grand Data Request No. 9.8, therefore, rated capacity is utilized.

ARIZONA-AMERICAN WATER - AGUA FRIA DISTRICT
DETERMINATION OF WATER SUPPLY RESERVE MARGIN
(WATER PLANTS NOT CONNECTED TO WHITE TANKS FACILITY) 1/

	Rated Capacity					Effective Capacity		
	Well	Rated Pump Yield (GPM) 2/	Rated Capacity (MGD)	Coincident Peak Day (MGD) 3/	Reserve Margin	Effective Pump Yield (GPM)	Effective Capacity (MGD) 4/	Reserve Margin
Plant 1:								
	1.1	1,200	1.73			1,114	1.60	
	1.2	1,200	1.73			1,013	1.46	
	1.4	1,000	1.44			891	1.28	
	1.5	1,200	1.73			1,155	1.66	
	Total		6.62	2.84	133%		6.01	112%
Plant 2:								
	2.1	1,200	1.73			1,171	1.69	
	2.2	1,200	1.73			1,200	1.73	
	2.3	1,200	1.73			787	1.13	
	2.4	1,200	1.73			1,248	1.80	
	Total		6.91	2.04	239%		6.34	211%
Plant 3:								
	3.1	1,200	1.73			776	1.12	
	3.2	1,000	1.44			1,051	1.51	
	3.3	1,133	1.63			1,059	1.52	
	3.4	1,200	1.73			1,228	1.77	
	Total		6.53	5.42	20%		5.92	9.3%
Other:								
	11.2	880	1.27			891	1.28	
	Total		1.27	0.79	60%		1.28	62%
	14.3	570	0.82			611	0.88	
	Total		0.82	0.40	105%		0.88	120%
NE Agua Fria:								
	100.1	1,000	1.44			1,000	1.44	
	100.2	1,600	2.30			1,600	2.30	
	Total		3.74	2.70	39%		3.74	39%

1/ Connection to WTWTP: Responses to Staff Data Request Nos. 7.6 and 12.3.

2/ Capacity: Response to Sun City Grand data Request No. 8.24 and Company Filing: Other Filing Requirements, Section 2.

3/ Based on period October 1, 2010 through September 30, 2011 coincidence for each plant, per Company response to Sun City Grand Data Request No. 8.19.

4/ Per Company response to Sun City Grand Data Request No. 9.8.

Schedule GAW-4

COMPARISON OF UNIT PRODUCTION COSTS
WHITE TANKS vs. GROUNDWATER IN INTERCONNECTED AREA

Well ID	(1) Treated Cost Per 1,000 Gals. 1/	(2) Current Production Per 1,000 Gals. 2/	(3) Total Production (1) x (2)
4.1	$0.66	46,235	$30,515
4.2	$0.46	1	$0
4.3	$0.51	132,932	$67,795
4.4	$0.42	37,282	$15,658
4.5	$0.46	86,834	$39,944
4.6	$0.46	27	$12
4.7	$0.49	120,157	$58,877
5.1	$0.40	13,070	$5,228
5.2	$0.78	26,256	$20,480
5.3	$0.87	110,497	$96,132
8.1	$0.45	20,426	$9,192
8.2	$0.47	44,429	$20,882
8.3	$0.56	18,870	$10,567
Well 610C	N/A		N/A
9.1	$0.51	11,413	$5,821
9.2	$1.18	37	$44
9.3	$1.13	17,477	$19,749
9.4	$1.25	430	$538
AFTL 1	$2.55	3,912	$9,976
AFTL 4	$0.46	5,396	$2,482
MWD 7.22	$1.05	0	$0
Total		695,681	$413,891
Weighted Avg. Cost/1,000 Gals.			$0.595
White Tanks			$0.670

1/ Per "Water Quality and Operations Optimization Study," Final Report of Narasimhan Consulting Services, Inc., January 2010.

2/ Company response to Sun City Grand Data Request No. 8.19.

DOCKET NO. W-01303A-10-0448

DIRECT TESTIMONY OF
JOHN SHAW, P.E.

ON BEHALF OF
THE CLASS OF HOMEOWNERS ASSOCIATIONS

November 10, 2011

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is John Shaw, P.E. My business address is PO Box 4259, Truckee, CA 96160.

Q. WHAT IS YOUR PROFESSIONAL AND EDUCATIONAL BACKGROUND?

A. I am the Owner of John Shaw Consulting, LLC (JSC), which is a water and wastewater utility consulting firm located in Truckee, California. I have worked exclusively for John Shaw Consulting, LLC since its inception in 2000.

During my career at JSC, I have consulted numerous public and private water and wastewater utilities, other engineering firms, as well as legal counsel on issues ranging from planning, finance, facility design, regulatory compliance, management, operations and maintenance, governance, industry standards and legal liability.

Prior to my work at JSC, I worked for Shaw Engineering, Ltd. (SEL) (1986-2000) and SPB Utilities Services, Inc. (SPB) (1988-2000) where I served as President and Secretary/Treasurer respectively. SEL & SPB are both located in Reno, Nevada. SEL is a traditional engineering firm that specializes in providing engineering services to the water and wastewater utility industry, while SPB is a contract operations company, providing operation and maintenance services to both public and private water and wastewater utilities, as well as working for the Federal Environmental Protection Agency (EPA), providing training services to Nevada wastewater treatment plant operators.

I am, or have been, an owner, member of a Board of Directors, general manager, head of engineering and head of operations in the water and wastewater utility industry.

I hold a B.S. in Civil Engineering from the University of Nevada, Reno (1988) and have been certified as a wastewater and water treatment and water distribution system operator to the highest levels available. I am professional engineer registered or having been registered in the states of Nevada, Idaho, New Mexico, California, Vermont, Oregon, Wisconsin, Ohio, Guam, Washington and Michigan. A more complete statement of my professional and educational background is provided in my attached curriculum vitae (Exhibit A).

Q. HAVE YOU PREVIOUSLY PROVIDED EXPERT TESTIMONY BEFORE?

A. Yes, I have provided expert testimony in litigation matters concerning the water and wastewater utility industry in several states, including Nevada, California, Washington, Wisconsin, Oregon and Washington, D.C. I've testified at trial, and mediations and arbitrations. I've been accepted as an expert in the water and wastewater utility industry throughout the US as well as Canada, the United Kingdom, Jamaica, Honduras, Belarus and Spain.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I have been engaged by the Class of Homeowner Associations declared by the Commission (the "Class") currently consisting of 18 homeowner associations to investigate the capacity, and used and usefulness, of the White Tanks Water Treatment Facility (the "Plant"), which is owned,

operated, and maintained by Arizona-American Water (the "Company"). Therefore, the purpose of my testimony is to present the results of the studies I have conducted relating to those issues.

Q. MR. SHAW, HAVE YOU EVER VISITED THE WHITE TANKS WATER TREATMENT PLANT?

A. On October 11, 2011, I visited the White Tanks water treatment plant (the "Plant") and met with Ian Crooks, Joseph Cornejo (Director of Operations, White Tanks water treatment plant) and Jeremiah Mecham (Operations Superintendent), all employees of the Company. We discussed the planning, design, construction, operation and maintenance of the Plant, the regional water situation and the water distribution system. I was also given a thorough and informative tour of the entire facility by Mr. Cornejo and Mr. Mecham.

II. WATER RESOURCES - GROUNDWATER VS SURFACE WATER

Q. DOES ARIZONA-AMERICAN WATER HAVE A CAP ALLOCATION?

A. Yes. The Company's current total CAP allocation for the Agua Fria District is 11,093 acre feet per year (3.614 Billion Gallons per year or 9.90 MGD over 365 days).[1]

Q. HISTORICALLY, HOW HAS ARIZONA-AMERICAN USED ITS ANNUAL CAP ALLOCATION?

A. Prior to when the White Tanks Water Treatment Facility became operational in late 2009, virtually all of the Company's allocation was

1 Per CAP subcontract Status Report, April 2011.

injected, directly or indirectly, into the groundwater aquifer. More recently, the Plant has utilized between two thirds (66%) to three quarters (75%) of the Company's CAP allocation each year, with the vast majority of the remainder being injected into the groundwater aquifer (*See* Exhibit H - Company Response to SCGCA DR No. 9.5).

Q. HOW DOES THE ULTIMATE USE OF THE COMPANY'S CAP ALLOCATION AFFECT THE GROUNDWATER RESOURCES IN THE AGUA FRIA DISTRICT?

A. Generally speaking, the net effect of CAP water use on the ground water resources in the area is zero. Whether the CAP allocation is treated at the Plant and distributed to customers or injected into the groundwater aquifer and then later removed and distributed to customers, the net effect is the same, zero. That is, there is no net benefit to the ground water system. In fact, the cost associated with treatment of the Company's CAP allocation (as a surface water) is typically, in the industry, much more expensive than injecting it into the groundwater and later removing it.

The utilization of surface water for potable use requires that the water meet the Environmental Protection Agency's (EPA) Safe Drinking Water Act regulations for surface waters. This includes, among other things, the requirement of filtration and disinfection prior to distribution and delivery to customers. Generally, groundwater, on the other hand, is much less regulated. In fact, based upon the EPA regulations, groundwater can be pumped directly out of the ground and distributed to customers without any treatment if it meets primary and secondary water quality standards.

The injection of surface water into an aquifer has the same effect as treatment, such that the water can then be removed from the aquifer and treated as groundwater, thereby avoiding the regulatory hurdles associated with surface water. This process is typically much less expensive per unit delivered than treatment of surface waters.

III. COSTS AND CAPACITY

Q. MR. SHAW, THERE HAS BEEN CONSIDERABLE CONTROVERSY SURROUNDING THE CAPACITY OF THE PLANT. WILL YOU PLEASE CLARIFY?

A. Yes. It is my understanding based on conversations with the Maricopa County Environmental Services Department (MCESD), that the Company provided the MCESD with a permit application for the Plant that asked for a facility rating (firm capacity) of 13.4 MGD. That application included page 1-5 of a Black & Veatch report (*See* Exhibit B) which illustrated the capacity of each treatment train unit, the number of units, and the cumulative "system firm capacity". The document clearly states that "firm capacity is the system capacity with the largest unit removed from service". Likewise, as has been stated in several Company documents and multiple occasions in its testimony, firm capacity is calculated with the removal of a major treatment train component in compliance with the Arizona Department of Environmental Quality, "Guidelines For Construction of Water Systems, Engineering Bulletin No. 10", dated May 1978 (Bulletin No. 10). That particular section of Bulletin No. 10 reads as follows:

> "*RELIABILITY. Unless the treatment plant can be taken out of service for a period of time for maintenance and repair work, two or more of all essential treatment units or items shall be provided.*

With one unit or item out of service, the remaining units or items shall meet the design capacity of the plant."

(Emphasis added)

In fact, the Plant is taken out of service for an extended period of time every year. Specifically, the plant is taken out of service for more than two months out of the year to accommodate cleaning of the canal that transports CAP water to the Plant. For this reason, the exception applies, and the actual firm capacity of the Plant is calculated without the removal of any component. Therefore, the actual firm capacity of the White Tanks Plant is 20 MGD, rather than the 13.4 MGD capacity proffered by the Company.

Q. IN YOUR OPINION, HAS THE COMPANY BUILT A PLANT THAT REPRESENTS EXCESS CAPACITY?

A. Absolutely. The firm capacity of the Plant is twenty (20) MGD. At best, the Company can treat 9.9 MGD, based upon its annual CAP allocation. Likewise, during the period of September 2010 thru August 2011, the Company ran 2.9 billion gallons through the Plant (Exhibit F & Exhibit G – Company Response to SCGCA DR No. 8.37) and shut down the Plant completely for seventy-two consecutive days. Furthermore, the most current data (Exhibit H – Company Response to SCGCA DR No. 9.5) indicates that the Plant production only runs between 66% and 75% of the Company's annual CAP allocation (the rest going to groundwater recharge).

Given this data, the Plant's excess capacity is 20 MGD when it is not needed. This would be when either the Plant is shut down due to canal maintenance or when demand is less than well production capacity (Exhibit

D– Company Response to SCGCA DR No. 8.24). When the Plant is needed to meet peaking demands, the overcapacity is a function of the total demand in excess of the 44.8 MGD well production capability. From September 2010 thru August 2011, the most extreme month for water demand was August of 2011. During that month, the average daily demand in the Agua Fria District was 22.8 MGD (versus the 44.8 MGD well production capability), while the Plant averaged 7.83 MGD of production (Exhibit F – Company Response to SCGCA DR No. 8.19).

Q. MR. SHAW, CAN YOU DESCRIBE THE LEVELS OF OVERSIZING OR EXPANDABILITY THAT EXISTS AT THE PLANT?

A. The Company has provided a listing of the design capacities of all of the major treatment train components in Exhibit B. Each component has excess capacity ranging from between 13.4 MGD to 33.4 MGD, or 66% and 83% of total unit design capacity. In particular, the intake structure, the raw water storage supply, pumps and bypass have rated capacities of 40 MGD. The finished water pumps have a rated capacity of 25 MGD. The raw water intake discharge, bar screen, static mixer, splitter box, UV reactor, flocculation basins, DAF clarifiers and filters all have capacities of 20 MGD (despite the "permitted" capacity of 13.4 MGD).

As for the total land, based upon a visual inspection of the site, as well as the detailed design drawings provided (Exhibit C), approximately twenty five percent of the land is currently built on, leaving the remaining seventy five percent available for future expansion.

Q. IN YOUR OPINION, HOW SHOULD COSTS ALLOCATED TO THE OVERSIZING OR EXPANDABILITY BE ACCOUNTED FOR?

A. In my experience, the costs associated with expandability and oversizing, or built-in excess capacity are typically paid for with reserve funds, tracked on the books separately and then included in the connection fees paid by new development. The connection or hook-up fees, as opposed to use rates, should include the cost of infrastructure required to provide service, including the cost of previous expenses associated with oversizing of pipes, facilities, land acquisition and other associated costs.

The Plant was clearly envisioned to provide service for future customers and it provides a poor track record for reliance for even those future needs. Its existing use is occasional, inconsistent and undependable. As outlined in the Company's own statement (Exhibit I – Company Response to SCGCA DR No. 10.35) as well as productions data (Exhibit E – Company Response to SCGCA DR No. 8.18), the Plant has been effectively taken out of service twice due to unexpected raw water quality issues, both times during the peak summer months. On top of that, the Plant is completely out of service for months at a time during the winter.

Q. IS THE PLANT USED AND USEFUL?

A. I think that it is important to note that the terms, at least in this context, are not mutually exclusive. "Used and useful" should be considered as one rather than as separates. We can see clearly that the Plant is used at times. Of that there is no debate. As for usefulness, that quite a different matter. From December 11, 2010 to February 21, 2011, the Plant produced no water, CAP or otherwise. The fact that the water system can operate apparently without any significant issues for seventy two (72) consecutive

days without water from the Plant, leads me to believe that the Plant's usefulness is, at best, very limited. Furthermore, well production capability in the district is listed as approximately 44.8 MGD (Exhibit D – Company Response to SCGCA DR No. 8.24), yet the maximum monthly average demand (August 2011) in the Agua Fria District was approximately 22.8 MGD (Exhibit F – Company Response to SCGCA DR No. 8.19). Undoubtedly, significant excess capacity exists when the Plant is considered and there is abundant reserve capacity even without the Plant.

IV. PUBLIC VERSUS PRIVATE MODEL

Q. MR. SHAW, PLEASE DISCUSS THE DIFFERENCES BETWEEN HOW PUBLIC AND PRIVATE UTILITIES APPROACH FUTURE NEEDS?

A. In the public arena, when an entity such as a publicly owned water utility expands facilities at its own expense, it is for the express purpose of better serving existing customers. The utility either takes reserve funds which were specifically set aside for this purpose or borrows specifically for the purpose of capital improvements. When a public entity is faced with the need to expand facilities in order to accommodate new customers, such as a major development, typically the developer is made to provide the monies in advance of even design. This is done so that no public money is involved in speculation associated with land development.

In the private arena, this can be a different matter. Since a private entity is free to gamble its money on speculation, it can, in advance of development, build to its heart's content. If you will, a private entity can take a "build it and they will come" approach and gamble on growth.

In fact, the Company, in its revised application in Docket No. 05-0718 states:

> "Other entities have approached Arizona-American concerning purchasing treatment services at the completed plant. If the additional capacity is immediately available, this will make the White Tanks Plant more attractive to other purchasers. In turn, third party purchases would reduce the future revenue requirement or hook-up fees required to recover the cost of the facility"

This approach is definitely not a public entity mindset. That's not to say that it does not have some merit and could possibly be to the advantage of the existing customer base, but it is a gamble that is not to be made with the public dollar, especially not without the public's express consent.

Q. SHOULD AGUA FRIA CUSTOMERS BE ASKED TO BEAR THE BURDEN OF THIS ERROR?

A. In my opinion, it would be patently unreasonable to ask those who would not benefit from a successful outcome to pay the losses, debt or burden of a negative outcome. Those who stand to benefit should also stand to lose in the same proportion. The Company is allowed to earn a significant return on amounts included in rate base, which includes the capital cost of used and useful facilities. This does not incentivize frugality, but rather encourages a private entity to plow as much cash into infrastructure as it thinks it can get away with. The issue of used and useful should be dealt with prior to the investment, not afterwards. The Company did not bother to address this issue in advance and is now stuck with an investment in facilities that is not earning. This was the gamble that turned out to be a loser.

Furthermore, the argument that the ratepayers also stand to benefit from excess capacity rings hollow. The arguments to bolster that position

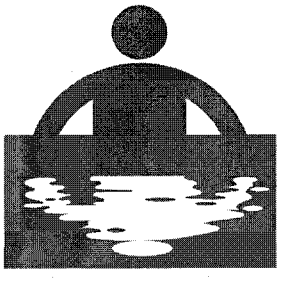
are all based upon speculation and conjecture rather than hard evidence and facts. There is minimal advantage to the existing customers. The Company has certainly not provided operational evidence that there is significant advantage to the Plant over the previous mode of operation which was, and to some extent still, is injecting its CAP allocation into the aquifer.

Clearly this plant was envisioned, designed, and built to serve future growth. Growth that did not materialize due in part to an economy that has been in a downward spiral now for years. In this economy, as we've all seen, there are winners and there are losers. If you gambled, you may be a loser and, if so, your lumps are coming.

Q. MR. SHAW DOES THIS CONCLUDE YOUR TESTIMONY?

A. It does, however, I reserve the right to revise my testimony based upon additional data and evidence.

EXHIBIT A



Curriculum Vitae of John Shaw, P.E.
John Shaw Consulting, LLC
Water, Wastewater, Hydraulic & Forensic Engineering

Address

Physical: 12654 Samuel Drive, Truckee, California 96161
Mailing: PO Box 4259, Truckee, California 96160
Phone Number: (530) 550-1576
Facsimile Number: (530) 579-3388
Email Address: John@shaweng.com

Education

B.S. – Civil Engineering – University of Nevada, Reno – 1988

Registrations and Certifications

- Professional Engineer – Nevada No. 10023
- Professional Engineer – Idaho No. 7239 (inactive)
- Professional Engineer – New Mexico No. 12490 (inactive)
- Professional Engineer – California No. 61007
- Professional Engineer – Vermont No. 7856
- Professional Engineer – Oregon No. 72270PE
- Professional Engineer – Wisconsin No. 40270-006
- Professional Engineer – Ohio No. 74995
- Professional Engineer – Guam No. 1579
- Professional Engineer – Washington No. 48470
- Professional Engineer – Michigan No. 6201058395
- Professional Reviewer & Expert Witness for the Oregon Board of Examiners for Engineering & Land Surveying
- NCEES Records Program – 19794
- United States Council for International Engineering Practice – Certificate No. 19794
- AWWA Certification – Grade IV Water Treatment Plant Operator No. 276
- AWWA Certification – Grade IV Water Distribution Operator No. 430
- WEF Certification – Grade IV Wastewater Treatment Plant Operator No. NV-322
- California DHS Certification – Grade V Water Distribution System Operator No. 7225
- Nevada State Health Certification – Grade IV Water Treatment Plant Operator No. 207 (inactive)
- Nevada State Health Certification – Grade IV Water Distribution Operator No. 430 (inactive)
- State of Nevada Certification – Grade IV Wastewater Treatment Plant Operator No. NV-322
- OSHA Confined Space Safety Certification (29 CFR 1910.146, 1926.1001, 1915.1001)

Professional Work History

2000 – Present: John Shaw Consulting, LLC: Provides Civil Engineering including design, planning and consulting on operations and maintenance, regulatory compliance and management services specific to the water and wastewater industry and consulting and expert witness testimony for attorneys. John has lived and/or worked in many of the United States as well as Jamaica, Mexico, Scotland, England, Spain, France, Italy, Honduras, Columbia, Belarus and Canada.

1986 – 2000: Shaw Engineering, Ltd.: President. Owned and managed this company until October, 2000, when it was sold to two of the Principal Engineers. Through Shaw Engineering, Ltd., I was involved in a diverse list of projects including water and wastewater planning, treatment, conveyance, collection, rehabilitation re-use and disposal facilities including planning, design, construction and contract management, operations, safety, and regulatory requirements. Through Shaw Engineering, Ltd., was appointed City Engineer for the City of Lovelock, in 1989 provided that service as well as serving as the City Building official until 1999. Later, provided these services as well to Lander County, Nevada. More recent projects include, Duraflex International – Industrial Wastewater Treatment and Disposal Facility, Alpine Springs County Water District, Gold Mountain Community Services District, Pine Ridge Water Company (Nos. 1 & 2), Matthew's Ranch Wastewater Treatment and Disposal Facility, Quill Ranch Water Treatment Plant, Grand View Terrace Water Company,

City of Lovelock Wastewater Treatment Facility (SBR); Lander County Public Safety Facility Construction Management; Battle Mountain Wastewater Treatment Plant; Lander County Humboldt and Reese River Contaminant Modeling; Lander County Pool Rehabilitation; CDB Effluent Reuse Facility-Hydraulic Analysis; Silver Lake Water Company System Mapping; Northstar Summit Deck & Grille; Sky Vista Sewage Lift Station and Force Main; Washoe County Utility Division Southern Washoe County Sewer and Water Utility System Mapping; Incline Village GID Burnt Cedar Beach Pool Rehabilitation; and numerous others.

1988 – 1995: SPB Utility Services, Inc.: Secretary/Treasurer. SPB is an operations company that provides contract operations, and operations and maintenance consulting services throughout the State of Nevada. As the Secretary of the corporation, was responsible for all of the local (Reno, Sparks, Washoe County) operations, employees and clients, as well as regulatory compliance, including OSHA, at all the facilities for which the company was responsible.

Affiliations

- University of Nevada, Reno, Department of Civil Engineering – Curriculum Advisory Board Member
- American Water Works Association - Member #233221
- AWWA, Illinois Section – Water System Distribution Committee - Member
- International Water Association (IWA) - Member
- Forensic Expert Witness Association (FEWA) - Member
- Tahoe Truckee Sanitary Agency (TTSA) – Board of Directors (2002 – 2005)
- Washoe County Health Department – Sewage, Water, and Sanitation Hearing Board Member (appointed 1993-1998)
- Tahoe-Truckee Engineers Association
- Volunteers for Overseas Cooperative Assistance (VOCA) - Volunteer
- Water for People – International Volunteer
- American Society of Civil Engineers
- National Society of Professional Engineers
- National Association of Corrosion Engineers - Member #6896-00
- American Backflow Prevention Association - Member #Q1245
- Water Environment Federation - Member #1645765
- National Association of Sewer Service Companies (NASSCO) - Member

EXHIBIT B

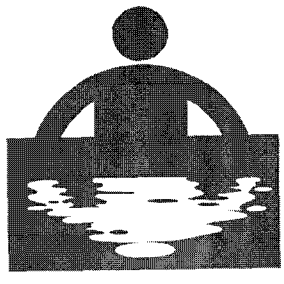


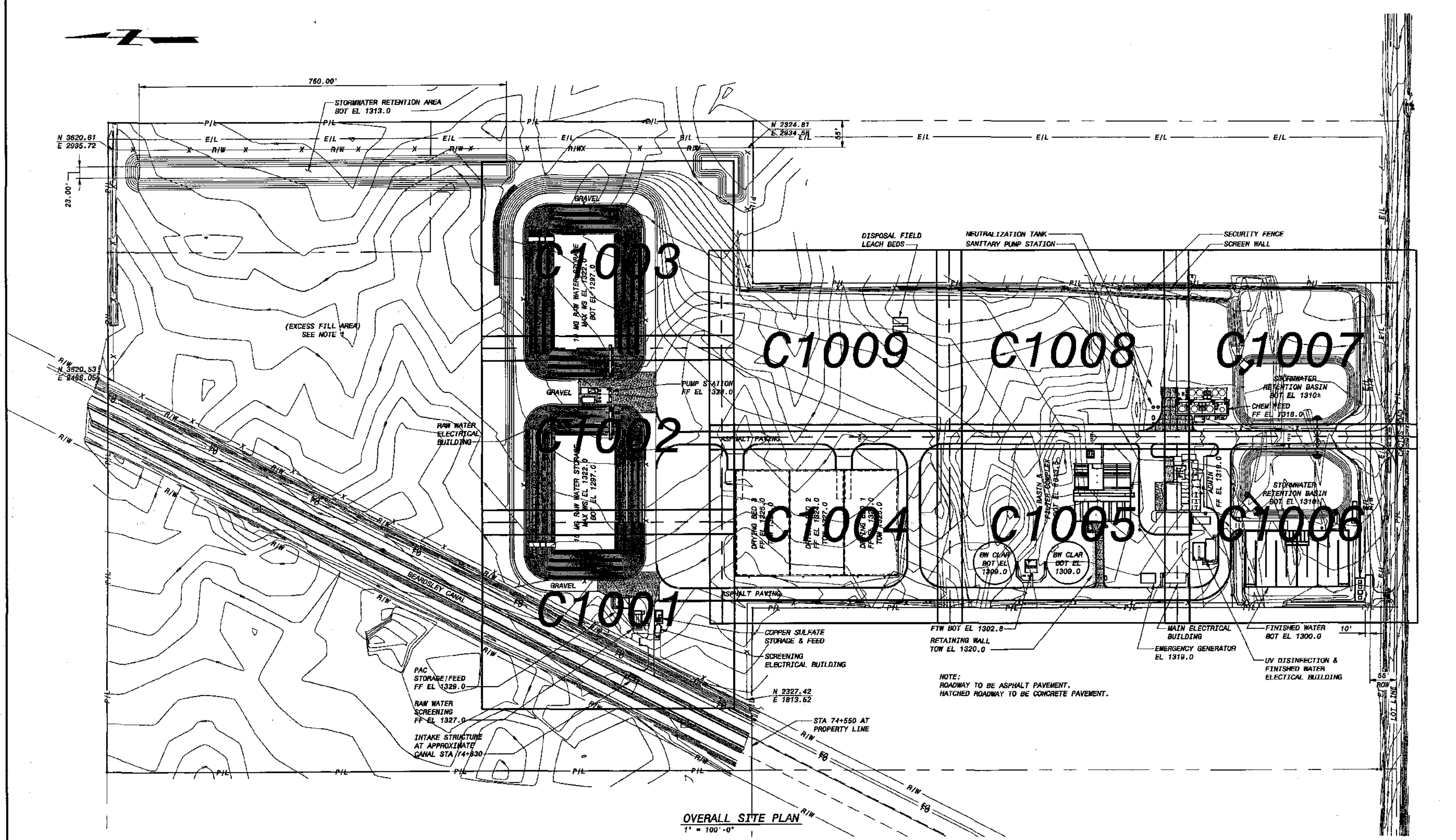
Table 1-2
Firm Capacity of Systems and Major Equipment

System Description	Number of Units	Capacity (each unit) [1]	System Firm Capacity [2]
Intake structure (Canal Turnout)	1	40 mgd	40 mgd [3]
Raw water intake discharge, RWI-42"	1	20 mgd	20 mgd [3]
Bar screens (1 mechanical, 1 manual)	2	20 mgd	20 mgd
Raw water storage supply, RWSS- 48"	1	40 mgd	40 mgd [3]
Raw water (RW) storage	2	10 MG	20 MG [3]
Raw water pump suction, RWS-42"	1	40 mgd	40 mgd [3]
Raw water bypass, RWB-30"	1	40 mgd	40 mgd [3]
Raw water pumps	3	10 mgd	20 mgd
Static mixer (30")	1	20 mgd	20 mgd [3]
Splitter box (4-way)	1	20 mgd	20 mgd [3]
Flocculation basins (3 of 4 trains)	3	6.7 mgd [4]	13.4 mgd
DAF clarifiers (3 of 4 trains)	3	6.7 mgd [5]	13.4 mgd [5]
Filters (3 of 4 trains)	3	6.7 mgd [6]	13.4 mgd [7]
UV reactors	2	20 mgd	20 mgd
Storage reservoirs	2	1.2 MG	2.4 MG [3, 8]
Finished water pumps (2 with VFD, one of each size)	3	2-10 and 1-5 mgd	15 mgd
Filter backwash pumps	2	19.1 mgd	19.1 mgd
Filter-to-waste equalization basin	1	54,300 gal	NA
Wastewater clarifiers	2	11,770 ppd	11,770 ppd [9]
Return flow pumps	2	2,100 gpm	2,100 gpm [10]
Drying bed feed pumps	2	474 gpm	474 gpm
Drying beds	3	5,016 ppd	5,016 ppd

Notes:

(1) Capacity refers to production capacity and does not include recycle streams.
(2) Firm capacity is the system capacity with the largest unit removed from service.
(3) For systems with no moving parts such as pipe or basins, firm capacity is considered the same capacity as unit capacity. The raw water storage basins contain no equipment and may be kept in service continually, except for annual cleaning and inspection during scheduled periods of reduced plant flow or to reduce detention time during low flow conditions.
(4) Peak flocculation rate is based on 15.7 minutes detention time. Flocculation basin capacity is 5.0 mgd at 20 minutes detention time.
(5) Based on a loading rate of 7.9 gpm/sf during period when one train is out of service.
(6) Based on a loading rate is of 6 gpm/sf.
(7) The firm capacity for filtration is based on one filter out of service, for maintenance or for backwashing.

EXHIBIT C



OVERALL SITE PLAN
1" = 100'-0"

NOTES:
1. EXCESS FILL MATERIAL MAY BE PLACED IN THIS UNDEVELOPED AREA IN ACCORDANCE WITH SPECIFICATION SECTION 2200.

100' 50' 0 100' 200'
1"=100'

ISSUED FOR CONSTRUCTION

DATE	REVISIONS AND RECORD OF ISSUE	NO.	BY	CK	APP
03/30/07	ISSUED FOR CONSTRUCTION	2	KGM	RHS	RLZ
12/15/06	REVISED PER ADDENDUM NO. 1	1	KGM	RHS	RLZ
11/15/06	ISSUED FOR BID	0	RDE	RHS	RLZ

BLACK & VEATCH
Black & Veatch Corporation
Phoenix, Arizona

WHITE TANKS WTP
ARIZONA AMERICAN WATER
MARICOPA COUNTY, ARIZONA

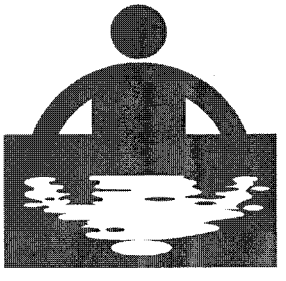
CIVIL
OVERALL SITE PLAN

DESIGNED: ICS
DETAILED: KGM, RDE
CHECKED:
APPROVED:
DATE: 11/15/06

PROJECT NO.
136589

SHEET NO.
C1000

EXHIBIT D



WATER USE DATA SHEET BY MONTH FOR SEPTEMBER 2010 - SEPTEMBER 2011

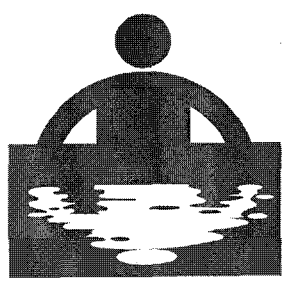
		A	B	C	D	E	F
MONTH	NUMBER OF CUSTOMERS	GALLONS PUMPED (Thousands)	GALLONS PURCHASED (Thousands)	GALLONS AUTHORIZED UNBILLED (Thousands)	GALLONS DELIVERED (Thousands)	GALLONS SOLD (Thousands)	% NON-ACCOUNT WATER (Thousands)
SEPTEMBER 2010	33,818	509,053	0	952	508,101	434,724	=(D-E)/D
OCTOBER 2010	33,837	503,030	0	301	502,729	465,179	7.46%
NOVEMBER 2010	33,872	428,632	0	291	428,341	402,918	5.93%
DECEMBER 2010	33,880	341,762	0	600	341,162	379,237	-11.14%
JANUARY 2011	33,964	304,975	0	2,118	302,857	273,094	9.76%
FEBRUARY 2011	34,033	288,704	0	1,086	287,618	282,525	1.77%
MARCH 2011	34,103	363,369	0	1,078	362,291	283,485	21.75%
APRIL 2011	34,133	404,228	0	2,870	401,358	383,164	4.50%
MAY 2011	34,229	495,203	0	743	494,460	420,662	14.90%
JUNE 2011	34,292	570,448	0	5,724	564,724	517,810	8.22%
JULY 2011	34,356	608,564	0	3,470	605,094	609,018	-0.64%
AUGUST 2011	34,397	618,773	0	2,324	616,449	543,371	11.81%
	TOTALS ->	5,436,741	0	21,557	5,415,184	4,995,187	7.73%

STORAGE TANKS		ADWR Well ID Number	WELL PRODUCTION Pump Yield (Gallons per Minute)
Capacity	Quantity		
100,000	1		
250,000	0	55-623682	1200
1,000,000	4	55-575445	1200
1,325,000	2	55-605761	1000
1,500,000	2	55-587293	1200
1,250,000	1	55-553671	1200
1,735,000	2	55-554002	1200
1,800,000	1	55-573654	1200
2,000,000	1	55-200558	1200
2,200,000	1	55-565447	1200
2,400,000 (White Tanks)	1	55-565446	1000
		55-591439	1133
		55-202096	1200
		55-604498	1200
		55-555779	800
		55-590166	888
		55-576971	1348
		55-593407	990
		55-202092	514
		55-204414	1000
		55-514145	800
		55-624692	600
		55-604500	800
		55-592749	400
		55-595241	540
		55-598979	240
		55-585407	320
		55-595267	500
		55-592226	530
		55-591437	500
		55-212491	880
		55-215441	570
		55-205432	500
		55-213859	720
		55-212434	600
Other Water Sources in Gallons per Minute (MWD Well 610-C, MWD Well 722 and White Tanks Water Treatment Plant)			11,289 GPM
Fire Hydrants on System			Yes
Total Water Pumped last 12 Months (Gallons in Thousands)			5,436,741

Sum 29173

Total Well Production Capacity (MGD)
44.77

EXHIBIT E

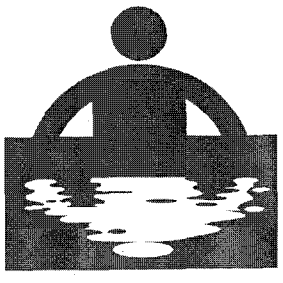


	A	B	C	D	E	F	G	H	I
1	**White Tanks Daily Production in MG**								
2	**2010**								
3		**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**
4	1	0.000	0.000	5.018	6.554	8.505	11.020	3.315	8.497
5	2	0.000	0.000	4.831	6.312	8.240	10.862	3.164	7.926
6	3	0.000	0.000	4.721	6.605	8.292	10.596	3.158	7.422
7	4	0.000	0.000	4.799	6.702	6.540	10.187	2.752	8.885
8	5	0.000	0.000	5.344	7.505	7.296	10.363	0.032	10.628
9	6	0.000	0.000	4.952	8.044	7.102	11.074	1.441	11.325
10	7	0.000	0.000	4.876	7.285	7.448	10.204	3.118	4.618
11	8	0.000	0.000	5.011	6.942	7.599	9.499	3.882	0.003
12	9	0.000	0.000	4.895	7.897	7.564	10.639	5.098	0.002
13	10	0.000	0.000	3.787	8.400	7.591	10.714	5.082	0.000
14	11	0.000	0.000	4.129	7.818	7.896	11.147	5.066	0.000
15	12	0.000	0.000	4.852	7.255	8.777	10.738	6.058	0.000
16	13	0.000	0.000	4.945	6.637	9.003	10.444	6.400	0.000
17	14	0.000	0.000	5.110	7.537	9.108	10.139	6.368	0.000
18	15	0.000	0.000	5.319	7.553	9.595	11.111	6.368	0.000
19	16	0.000	0.000	5.679	7.181	9.637	12.108	6.853	0.002
20	17	0.000	0.000	5.971	7.940	9.516	11.683	7.069	0.000
21	18	0.000	0.000	6.294	8.287	9.750	11.667	7.031	0.000
22	19	0.000	0.000	6.344	8.202	9.506	12.021	7.030	0.000
23	20	0.000	0.000	6.348	7.732	9.316	11.319	7.055	0.000
24	21	0.000	0.000	6.347	7.110	8.718	11.538	7.047	0.000
25	22	0.000	0.000	6.827	6.759	8.863	9.847	7.031	0.000
26	23	0.000	2.339	6.846	7.125	8.977	11.645	7.599	1.280
27	24	0.000	4.325	5.546	8.213	7.978	11.970	7.904	2.720
28	25	0.000	4.468	5.220	7.934	8.583	12.701	7.858	2.880
29	26	0.000	5.611	6.016	8.462	9.043	12.044	8.604	5.104
30	27	0.000	5.351	6.765	8.681	9.388	11.117	9.043	6.454
31	28	0.000	5.018	5.888	8.421	10.483	5.298	9.044	7.197
32	29	0.000		7.707	9.082	10.131	3.066	9.690	7.452
33	30	0.000		7.780	8.894	9.483	3.290	8.879	8.469
34	31	0.000		7.463		9.866		7.600	9.879
35	**Monthly Totals**	0.000	27.112	175.631	229.070	269.794	310.052	186.639	110.744

	J	K	L	M	N
1					
2					
3	**Sep**	**Oct**	**Nov**	**Dec**	
4	10.703	11.274	9.950	7.982	
5	9.565	11.173	10.248	7.951	
6	9.868	10.699	9.919	8.011	
7	10.753	10.999	9.932	8.046	
8	10.498	10.572	10.172	8.049	
9	10.920	9.730	10.198	8.165	
10	11.060	10.234	10.278	8.178	
11	10.057	10.171	10.384	7.846	
12	9.245	10.527	9.907	6.793	
13	9.259	10.862	9.215	3.661	
14	10.798	11.244	8.595	0.000	
15	11.510	11.481	8.940	0.000	
16	11.418	11.692	9.779	0.000	
17	10.794	11.594	10.063	0.000	
18	10.917	11.976	9.776	0.000	
19	10.974	12.519	9.042	0.000	
20	10.522	11.303	8.216	0.000	
21	11.059	11.543	8.356	0.000	
22	11.797	11.999	8.767	0.000	
23	11.357	11.161	9.129	0.000	
24	10.718	11.009	9.320	0.000	
25	10.766	10.224	9.066	0.000	
26	10.076	10.737	8.439	0.000	
27	9.797	10.956	7.856	0.000	
28	11.288	10.505	7.791	0.000	
29	11.771	10.381	8.902	0.000	
30	11.227	10.214	8.292	0.000	
31	10.513	10.252	7.588	0.000	
32	10.475	10.642	8.943	0.000	
33	10.282	10.711	8.920	0.000	
34		10.372		0.000	**Annual Total**
35	319.988	338.757	275.983	74.683	2,318.453

	A	B	C	D	E	F	G	H	I	J	N
1	**White Tanks Daily Production in MG**										
2	**2011 to date thru September**										
3		**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	
4	1	0.000	0.000	6.886	9.040	10.256	13.062	11.581	12.937	4.454	
5	2	0.000	0.000	6.868	9.492	10.172	12.835	12.343	13.114	4.508	
6	3	0.000	0.000	6.544	9.044	10.764	12.724	12.205	13.468	4.505	
7	4	0.000	0.000	7.271	9.123	10.819	12.760	12.608	13.190	4.414	
8	5	0.000	0.000	7.874	9.148	10.499	12.721	13.151	13.066	4.363	
9	6	0.000	0.000	7.802	8.969	10.165	12.752	12.617	13.420	4.503	
10	7	0.000	0.000	7.661	8.664	10.563	11.947	11.402	13.280	4.494	
11	8	0.000	0.000	8.037	8.948	10.341	11.715	11.393	13.300	4.493	
12	9	0.000	0.000	7.997	8.605	10.841	12.348	11.053	12.807	4.568	
13	10	0.000	0.000	7.902	8.164	10.738	12.562	8.937	13.192	4.013	
14	11	0.000	0.000	8.068	7.040	10.431	12.996	8.843	11.303	3.896	
15	12	0.000	0.000	8.074	7.636	10.255	12.242	7.994	7.754	5.210	
16	13	0.000	0.000	8.000	8.969	11.057	12.759	7.461	7.526	5.855	
17	14	0.000	0.000	8.356	8.977	11.674	13.270	8.260	7.305	5.127	
18	15	0.000	0.000	8.315	9.267	11.615	12.927	8.379	8.257	5.950	
19	16	0.000	0.000	8.165	9.438	11.799	13.228	8.461	6.207	8.006	
20	17	0.000	0.000	8.211	9.128	11.366	13.561	7.877	5.044	9.063	
21	18	0.000	0.000	8.443	8.960	10.612	14.182	8.644	4.647	9.258	
22	19	0.000	0.000	8.939	10.372	9.718	14.234	8.505	4.229	9.272	
23	20	0.000	0.000	9.060	9.935	11.047	12.786	8.376	4.106	9.490	
24	21	0.000	0.000	8.433	8.967	11.949	12.663	9.629	4.130	11.087	
25	22	0.000	2.835	7.145	9.176	11.703	12.668	12.169	4.332	11.443	
26	23	0.000	4.813	6.191	9.431	11.761	12.268	9.885	3.786	10.923	
27	24	0.000	6.105	5.838	9.880	12.073	13.368	11.085	3.712	9.524	
28	25	0.000	6.465	6.848	10.267	11.855	13.747	12.227	4.363	9.038	
29	26	0.000	6.602	7.950	10.575	11.640	13.080	11.592	4.221	10.481	
30	27	0.000	6.468	8.216	10.396	11.724	12.724	12.653	3.784	10.965	
31	28	0.000	6.614	9.278	10.164	12.440	13.089	13.466	3.736	11.127	
32	29	0.000		9.150	9.712	12.460	13.011	13.366	4.341	10.595	
33	30	0.000		8.654	10.206	12.648	12.846	13.487	4.199	9.390	
34	31	0.000		8.401		12.964		13.050	3.972		**Annual Total**
35	**Monthly Totals**	0.000	39.903	244.577	277.693	347.948	387.074	332.701	242.730	220.014	2,092.638
36											
37											
38						1872.624					
39						1009.411					
40			**WT Production from 9-10 thru 8-11 (Kgal)**			**2882.036**					

EXHIBIT F



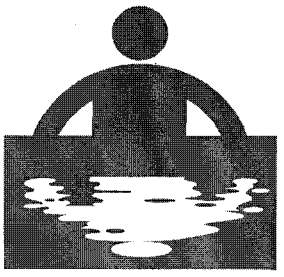
Monthly Production of Source Wells

			Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Annual Total
			KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	
Agua Fria PWS	Not Directly Impacted by White Tanks	Well 1.1	13,149	12,037	14,570	15,874	19,740	21,677	20,617	19,076	18,250				154,990
		Well 1.2	10,939	10,085	12,225	13,269	16,364	17,924	17,066	16,519	16,748				131,137
		Well 1.4	10,103	9,475	11,231	12,321	13,590	16,734	15,646	15,338	14,867				119,303
		Well 1.5	10,742	11,251	12,332	13,527	17,992	20,574	19,718	19,294	17,058				142,488
		Well 2.1	16,474	13,707	5,003	5,222	5,762	7,121	11,564	12,792	16,399				94,044
		Well 2.2													0
		Well 2.3	11,399	9,712	3,432	3,613	3,742	4,871	7,948	8,667	11,219				64,602
		Well 2.4	17,279	14,705	5,275	5,578	5,812	7,411	12,251	13,401	17,483				99,194
		Well 3.1	10,446	8,646	9,005	8,877	9,606	9,437	15,655	20,643	20,232				112,545
		Well 3.2	14,175	11,704	12,297	12,129	13,096	12,863	21,146	27,711	27,270				152,391
		Well 3.3	14,410	11,589	12,720	12,342	13,556	13,246	21,702	28,468	22,345				150,377
		Well 3.4	16,053	13,096	13,710	12,650	15,143	14,802	24,701	32,781	32,130				175,065
		Well 100.1	8,473	7,660	9,805	13,050	20,810	23,890	25,750	24,430	19,903				153,771
		Well 100.2	14,128	12,920	16,384	21,621	34,966	41,440	43,258	41,353	37,018				263,086
		Well 100 E Ag	1,628	1,310	3,893	6,216	8,442	13,128	9,573	9,727	6,742				60,659
		Well 100 W Ag	2,503	2,603	5,028	6,269	9,283	9,221	9,725	9,850	6,503				60,984
		Well 11.2	7,074	6,730	9,949	11,797	13,634	16,553	17,952	15,928	13,794				113,410
		Well 14.3	3,588	3,944	3,516	4,276	6,549	9,522	9,938	8,743	7,768				57,844
	Directly Impacted by White Tanks	Well 4.1	15	2,616	0	0	0	1,769	11,618	15,128	12,945				44,091
		Well 4.2	0	0	0	0	0	0	0	1	0				1
		Well 4.3	33,132	22,896	0	0	0	7,605	18,465	18,311	12,301				112,710
		Well 4.4	11,036	16,898	0	0	0	0	42	0	0				27,976
		Well 4.5	37,229	25,258	0	0	0	0	9	0	0				62,496
		Well 4.6	0	0	0	0	0	0	0	0	0				0
		Well 4.7	42,933	26,409	0	0	0	0	13	16,757	11,245				97,357
		Well 5.1	0	0	64	99	39	0	1,832	8,911	2,114				13,059
		Well 5.2	226	428	143	888	198	897	2,843	12,570	7,314				25,507
		Well 5.3	19,549	12,931	107	311	864	7,131	9,674	23,623	17,518				91,708
		AFTL 1	55	206	5	0	0	12	0	0	0				278
		AFTL 3	0	56	0	0	0	0	11	0	0				67
		AFTL 4	0	0	0	0	0	26	0	0	0				26
		Well 8.1	2,147	1,795	0	0	0	0	3,722	6,803	4,177				18,644
		Well 8.2	5,769	946	0	0	0	0	4,068	19,362	11,740				41,885
		Well 8.3	2,021	1,740	0	0	0	0	3,365	6,285	3,842				17,253
		Well 9.1	4	0	0	0	0	953	39	4,411	5,986				11,393
		Well 9.2	5	0	0	0	0	0	0	0	0				5
		Well 9.3	3	0	0	0	0	1,140	165	7,770	8,381				17,459
		Well 9.4	1	0	0	0	0	331	3	0	67				402
		MWD722	0	0	0	0	0	0	0	0	0				0
		MWD 610-C	0	0	0	0	0	0	0	0	0				0
		WTWTP		39,903	244,577	277,693	347,948	387,074	332,701	242,730	220,014				2,092,639
Total		KGALS	336,687	313,255	405,271	457,617	577,132	667,353	692,779	707,380	623,371	0	0	0	4,780,845
AF Monthly Prod		%	7.04	6.55	8.48	9.57	12.07	13.96	14.49	14.80	13.04	0.00	0.00	0.00	100

Monthly Production of Source Wells

			Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Annual Total
			KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	KGALS	
Agua Fria PWS	Not Directly Impacted by White Tanks	Well 1.1	7,018	5,540	8,659	11,607	15,025	21,520	21,227	19,652	19,857	18,547	17,005	13,539	179,196
		Well 1.2	4,157	3,546	7,469	9,761	12,749	18,172	17,278	15,913	16,198	15,246	14,425	11,447	146,361
		Well 1.4	5,365	4,976	6,394	2,218	10,567	15,880	15,964	14,367	14,718	13,817	13,143	10,515	127,924
		Well 1.5	6,592	2,300	599	9,456	13,991	16,665	19,992	18,533	18,453	17,279	14,569	12,541	150,971
		Well 2.1	16,583	14,711	16,306	17,254	18,170	18,534	27,596	23,115	14,107	9,058	6,245	12,696	194,375
		Well 2.2													0
		Well 2.3	11,454	10,069	11,257	11,903	12,441	12,374	18,751	15,829	9,671	6,286	4,293	8,836	133,163
		Well 2.4	16,056	15,547	17,158	18,172	19,273	19,034	29,075	24,456	14,881	9,453	6,544	13,347	202,995
		Well 3.1	10,647	9,518	10,872	11,837	13,637	12,437	14,408	14,416	10,741	9,310	9,128	10,197	137,148
		Well 3.2	14,041	11,963	10,620	15,927	19,016	16,635	19,199	19,262	14,449	12,608	12,360	13,865	179,945
		Well 3.3	14,923	13,128	15,662	17,014	20,227	17,875	18,172	20,522	12,356	13,020	12,426	13,500	188,825
		Well 3.4	16,632	14,577	16,849	18,485	22,073	19,466	22,611	22,727	16,851	14,508	13,742	15,341	213,860
		Well 100.1	9,013	8,280	10,123	11,150	11,697	14,490	17,480	18,330	15,270	12,710	10,700	8,802	148,045
		Well 100.2	15,244	13,475	15,537	18,856	22,427	27,295	29,492	30,855	25,858	21,488	18,193	14,805	253,525
		Well 100 E Ag	2,223	2,914	3,497	7,629	9,863	9,287	5,209	3,946	15,068	12,177	4,388	1,649	77,849
		Well 100 W Ag	2,267	2,589	3,395	6,638	9,413	9,342	14,112	13,067	1,100	6,248	4,763	2,057	74,991
		Well 11.2	4,700	4,125	4,133	11,590	19,858	19,537	24,223	18,350	17,834	13,082	11,441	7,778	156,649
		Well 14.3	873	1,138	1,354	2,436	3,424	3,427	3,417	3,476	4,503	6,566	6,366	3,962	40,944
	Directly Impacted by White Tanks	Well 4.1	2,946	3,703	155	31	0	3,451	23,313	7,219	0	12	16	2,116	42,962
		Well 4.2	23,135	3	0	0	0	0	0	0	0	0	0	0	23,138
		Well 4.3	11,378	10,952	239	387	410	4,648	28,202	17,101	50	195	10	20,017	93,589
		Well 4.4	31,706	20,441	5	5	0	0	12	19,812	0	0	0	9,306	81,287
		Well 4.5	32,033	28,541	8	11	0	4,036	8,632	20,891	0	0	0	24,338	118,490
		Well 4.6	14	0	3	5	0	0	11	0	0	0	0	27	60
		Well 4.7	17,625	21,461	4	5	0	4,040	9,586	23,871	0	0	0	22,800	99,392
		Well 5.1	0	0	39	43	0	89	0	357	613	0	11	0	1,152
		Well 5.2	3,141	2,342	0	352	5,466	3,310	8,028	6,403	1,016	346	285	118	30,807
		Well 5.3	25,295	15,035	295	460	9,679	6,059	26,896	13,090	4,266	3,817	1,707	13,266	119,864
		AFTL 1	4,439	4,207	0	0	34	12	1,386	7,694	4	30	0	3,604	21,410
		AFTL 3	346	236	0	16	0	375	903	3,731	0	0	0	0	5,607
		AFTL 4	2,954	1,195	0	21	0	207	225	12,196	0	35	0	5,335	22,168
		Well 8.1	2,083	678	14	3	0	888	6,723	6,093	0	16	0	1,767	18,265
		Well 8.2	6,984	1,893	18	5	0	2,417	18,726	16,721	200	28	0	2,516	49,508
		Well 8.3	1,947	635	2	1	0	790	6,190	5,549	0	9	0	1,608	16,731
		Well 9.1	11	0	0	117	5	938	74	0	150	11	9	0	1,315
		Well 9.2	0	24	0	0	18	0	0	0	0	19	13	0	74
		Well 9.3	0	0	4	152	2	1	0	0	17	4	14	0	194
		Well 9.4	1	0	3	158	6	16	8	0	28	13	15	0	248
		MWD722	0	0	0	0	0	0	1,329	12,036	0	0	0	0	13,365
		MWD 610-C	0	0	0	0	0	0	1,610	0	0	0	0	0	1,610
		WTWTP		27,112	175,631	229,070	269,794	310,052	186,639	110,744	319,988	338,757	275,983	74,683	2,318,453
Total		KGALS	323,828	276,854	336,303	432,776	539,264	613,298	646,698	580,323	568,247	554,695	457,793	356,376	5,686,456
AF Monthly Prod		%	5.69	4.87	5.91	7.61	9.48	10.79	11.37	10.21	9.99	9.75	8.05	6.27	100

EXHIBIT G



09/01/10 00:00	Raw Water Flow CFS	September	
10/01/10 00:00	WT_FIT_21000	Tot CFS	K/gal
09/01/10 Wed	20105.28	61.701	9016.986
09/02/10 Thu	22239.75	68.251	9974.272
09/03/10 Fri	27193.74	83.455	12196.080
09/04/10 Sat	28814.37	88.428	12922.913
09/05/10 Sun	26689.01	81.906	11969.717
09/06/10 Mon	25884.93	79.438	11609.094
09/07/10 Tue	25942.21	79.614	11634.782
09/08/10 Wed	23822.45	73.108	10684.095
09/09/10 Thu	23054.79	70.753	10339.807
09/10/10 Fri	20969.07	64.352	9404.389
09/11/10 Sat	20216.63	62.043	9066.926
09/12/10 Sun	18014.50	55.284	8079.296
09/13/10 Mon	17285.83	53.048	7752.497
09/14/10 Tue	22608.35	69.382	10139.587
09/15/10 Wed	24486.01	75.145	10981.694
09/16/10 Thu	27592.01	84.677	12374.701
09/17/10 Fri	28816.49	88.435	12923.865
09/18/10 Sat	28784.08	88.335	12909.330
09/19/10 Sun	26765.42	82.140	12003.985
09/20/10 Mon	25923.68	79.557	11626.472
09/21/10 Tue	23774.44	72.961	10662.563
09/22/10 Wed	23016.13	70.634	10322.472
09/23/10 Thu	23050.52	70.739	10337.892
09/24/10 Fri	23087.54	70.853	10354.498
09/25/10 Sat	20106.65	61.705	9017.603
09/26/10 Sun	23984.22	73.605	10756.646
09/27/10 Mon	27991.46	85.903	12553.849
09/28/10 Tue	28802.96	88.393	12917.796
09/29/10 Wed	28791.86	88.359	12912.819
09/30/10 Thu	26686.52	81.898	11968.597

Total K/gal	**329,415.225**
Acre-Ft	**2,254.100**
Average Day K/gal	**10,980.507**
Max Day K/gal	**12,923.865**
Production Days	**30.0**

10/01/10 00:00	Raw Water Flow CFS	October	
11/01/10 00:00	WT_FIT_21000	Tot CFS	K/gal
10/01/10 Fri	23969.01	73.558	10749.827
10/02/10 Sat	23047.18	70.729	10336.398
10/03/10 Sun	23034.80	70.691	10330.843
10/04/10 Mon	23064.48	70.782	10344.156
10/05/10 Tue	20887.02	64.100	9367.589
10/06/10 Wed	20035.62	61.487	8985.744
10/07/10 Thu	20110.30	61.716	9019.240
10/08/10 Fri	20107.77	61.708	9018.105
10/09/10 Sat	23277.13	71.435	10439.528
10/10/10 Sun	24480.12	75.127	10979.055
10/11/10 Mon	24442.89	75.012	10962.354
10/12/10 Tue	24364.30	74.771	10927.111
10/13/10 Wed	26493.92	81.307	11882.221
10/14/10 Thu	27346.34	83.923	12264.518
10/15/10 Fri	27387.64	84.050	12283.044
10/16/10 Sat	27359.22	83.962	12270.296
10/17/10 Sun	29431.03	90.321	13199.479
10/18/10 Mon	30215.13	92.727	13551.140
10/19/10 Tue	27051.77	83.019	12132.411
10/20/10 Wed	25928.77	79.572	11628.758
10/21/10 Thu	25925.27	79.562	11627.188
10/22/10 Fri	25908.36	79.510	11619.602
10/23/10 Sat	21953.60	67.373	9845.938
10/24/10 Sun	20188.64	61.957	9054.373
10/25/10 Mon	20156.37	61.858	9039.899
10/26/10 Tue	20166.52	61.889	9044.451
10/27/10 Wed	20052.17	61.538	8993.167
10/28/10 Thu	20147.02	61.829	9035.707
10/29/10 Fri	20172.53	61.907	9047.150
10/30/10 Sat	21158.50	64.933	9489.347
10/31/10 Sun	21634.10	66.393	9702.644

Total K/gal	**327,171.284**
Acre-Ft	**2,238.746**
Average Day K/gal	**10,553.912**
Max Day K/gal	**13,551.140**
Production Days	**31.0**

2,879,541.94

11/01/10 00:00	Raw Water Flow CFS	November	
12/01/10 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
11/01/10 Mon	21558.55	66.161	9668.761
11/02/10 Tue	22754.28	69.830	10205.033
11/03/10 Wed	24191.50	74.241	10849.610
11/04/10 Thu	25525.15	78.334	11447.740
11/05/10 Fri	25916.17	79.534	11623.104
11/06/10 Sat	25911.64	79.520	11621.074
11/07/10 Sun	25934.67	79.591	11631.404
11/08/10 Mon	25934.30	79.589	11631.238
11/09/10 Tue	19651.69	60.309	8813.557
11/10/10 Wed	16254.54	49.883	7289.975
11/11/10 Thu	15808.21	48.514	7089.802
11/12/10 Fri	18075.29	55.471	8106.562
11/13/10 Sat	18671.40	57.300	8373.909
11/14/10 Sun	21916.87	67.260	9829.467
11/15/10 Mon	26279.29	80.648	11785.959
11/16/10 Tue	27357.98	83.959	12269.740
11/17/10 Wed	19431.19	59.632	8714.668
11/18/10 Thu	15346.49	47.097	6882.724
11/19/10 Fri	14436.30	44.303	6474.515
11/20/10 Sat	14413.23	44.233	6464.170
11/21/10 Sun	18739.29	57.509	8404.357
11/22/10 Mon	21257.91	65.238	9533.930
11/23/10 Tue	22660.30	69.542	10162.884
11/24/10 Wed	25211.50	77.371	11307.067
11/25/10 Thu	25103.89	77.041	11258.806
11/26/10 Fri	18873.42	57.920	8464.511
11/27/10 Sat	15852.41	48.649	7109.622
11/28/10 Sun	15864.16	48.685	7114.896
11/29/10 Mon	15844.20	48.624	7105.941
11/30/10 Tue	15835.91	48.599	7102.224

Total K/gal	**278,337.250**
Acre-Ft	**1,904.587**
Average Day K/gal	**9,277.908**
Max Day K/gal	**12,269.740**
Production Days	**30.0**

12/01/10 00:00	Raw Water Flow CFS	December	
01/01/11 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
12/01/10 Wed	18030.24	55.333	8086.357
12/02/10 Thu	18692.55	57.365	8383.394
12/03/10 Fri	20754.36	63.693	9308.093
12/04/10 Sat	18725.99	57.468	8398.392
12/05/10 Sun	17322.24	53.160	7768.825
12/06/10 Mon	17324.49	53.167	7769.836
12/07/10 Tue	18385.44	56.423	8245.661
12/08/10 Wed	20790.60	63.804	9324.348
12/09/10 Thu	21452.34	65.835	9621.130
12/10/10 Fri	6312.03	19.371	2830.875
12/11/10 Sat	Off Line		
12/12/10 Sun	Off Line		
12/13/10 Mon	Off Line		
12/14/10 Tue	Off Line		
12/15/10 Wed	Off Line		
12/16/10 Thu	Off Line		
12/17/10 Fri	Off Line		
12/18/10 Sat	Off Line		
12/19/10 Sun	Off Line		
12/20/10 Mon	Off Line		
12/21/10 Tue	Off Line		
12/22/10 Wed	Off Line		
12/23/10 Thu	Off Line		
12/24/10 Fri	Off Line		
12/25/10 Sat	Off Line		
12/26/10 Sun	Off Line		
12/27/10 Mon	Off Line		
12/28/10 Tue	Off Line		
12/29/10 Wed	Off Line		
12/30/10 Thu	Off Line		
12/31/10 Fri	Off Line		

Total K/gal	**79,736.909**
Acre-Ft	**545.618**
Average Day K/gal	**7,973.691**
Max Day K/gal	**9,621.130**
Production Days	**10.0**

01/01/11 00:00	Raw Water Flow CFS	January	
02/01/11 00:00	WT_FIT_21000	Tot CFS	K/gal
01/01/11 Sat	Off Line		
01/02/11 Sun	Off Line		
01/03/11 Mon	Off Line		
01/04/11 Tue	Off Line		
01/05/11 Wed	Off Line		
01/06/11 Thu	Off Line		
01/07/11 Fri	Off Line		
01/08/11 Sat	Off Line		
01/09/11 Sun	Off Line		
01/10/11 Mon	Off Line		
01/11/11 Tue	Off Line		
01/12/11 Wed	Off Line		
01/13/11 Thu	Off Line		
01/14/11 Fri	Off Line		
01/15/11 Sat	Off Line		
01/16/11 Sun	Off Line		
01/17/11 Mon	Off Line		
01/18/11 Tue	Off Line		
01/19/11 Wed	Off Line		
01/20/11 Thu	Off Line		
01/21/11 Fri	Off Line		
01/22/11 Sat	Off Line		
01/23/11 Sun	Off Line		
01/24/11 Mon	Off Line		
01/25/11 Tue	Off Line		
01/26/11 Wed	Off Line		
01/27/11 Thu	Off Line		
01/28/11 Fri	Off Line		
01/29/11 Sat	Off Line		
01/30/11 Sun	Off Line		
01/31/11 Mon	Off Line		

Total K/gal	**0.000**
Acre-Ft	**0.000**
Average Day K/gal	
Max Day K/gal	**0.000**
Production Days	**0.0**

02/01/11 00:00	Raw Water Flow CFS	February	
03/01/11 00:00	WT_FIT_21000	Tot CFS	K/gal
02/01/11 Tue	Off Line		
02/02/11 Wed	Off Line		
02/03/11 Thu	Off Line		
02/04/11 Fri	Off Line		
02/05/11 Sat	Off Line		
02/06/11 Sun	Off Line		
02/07/11 Mon	Off Line		
02/08/11 Tue	Off Line		
02/09/11 Wed	Off Line		
02/10/11 Thu	Off Line		
02/11/11 Fri	Off Line		
02/12/11 Sat	Off Line		
02/13/11 Sun	Off Line		
02/14/11 Mon	Off Line		
02/15/11 Tue	Off Line		
02/16/11 Wed	Off Line		
02/17/11 Thu	Off Line		
02/18/11 Fri	Off Line		
02/19/11 Sat	Off Line		
02/20/11 Sun	Off Line		
02/21/11 Mon	Off Line		
02/22/11 Tue	11587.22	35.560	5196.736
02/23/11 Wed	16881.76	51.808	7571.274
02/24/11 Thu	17164.90	52.677	7698.262
02/25/11 Fri	14300.05	43.885	6413.408
02/26/11 Sat	12965.86	39.791	5815.041
02/27/11 Sun	12924.35	39.663	5796.424
02/28/11 Mon	12966.64	39.793	5815.388

Total K/gal	**44,306.532**
Acre-Ft	**303.178**
Average Day K/gal	**6,329.505**
Max Day K/gal	**7,698.262**
Production Days	**7.0**

03/01/11 00:00	Raw Water Flow CFS	March	
04/01/11 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
03/01/11 Tue	13010.15	39.927	5834.902
03/02/11 Wed	15089.62	46.308	6767.522
03/03/11 Thu	17916.13	54.983	8035.179
03/04/11 Fri	18756.13	57.560	8411.910
03/05/11 Sat	16553.72	50.802	7424.156
03/06/11 Sun	15892.84	48.773	7127.755
03/07/11 Mon	15844.78	48.626	7106.204
03/08/11 Tue	15885.82	48.752	7124.609
03/09/11 Wed	15879.26	48.732	7121.667
03/10/11 Thu	15850.08	48.642	7108.578
03/11/11 Fri	15840.95	48.614	7104.486
03/12/11 Sat	15893.66	48.776	7128.126
03/13/11 Sun	15882.76	48.742	7123.237
03/14/11 Mon	17989.40	55.207	8068.039
03/15/11 Tue	18748.18	57.536	8408.345
03/16/11 Wed	19745.24	60.596	8855.514
03/17/11 Thu	20216.75	62.043	9066.979
03/18/11 Fri	18130.22	55.640	8131.198
03/19/11 Sat	17304.52	53.106	7760.878
03/20/11 Sun	17337.64	53.207	7775.733
03/21/11 Mon	17267.84	52.993	7744.428
03/22/11 Tue	20392.84	62.583	9145.956
03/23/11 Wed	18492.25	56.751	8293.563
03/24/11 Thu	15265.42	46.848	6846.365
03/25/11 Fri	12406.69	38.075	5564.259
03/26/11 Sat	11540.50	35.417	5175.784
03/27/11 Sun	11600.43	35.600	5202.661
03/28/11 Mon	17958.67	55.113	8054.258
03/29/11 Tue	21218.02	65.116	9516.037
03/30/11 Wed	24839.08	76.228	11140.041
03/31/11 Thu	25917.78	79.539	11623.828

Total K/gal	**239,792.194**
Acre-Ft	**1,640.834**
Average Day K/gal	**7,735.232**
Max Day K/gal	**11,623.828**
Production Days	**31.0**

04/01/11 00:00	Raw Water Flow CFS	April	
05/01/11 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
04/01/11 Fri	21865.89	67.104	9806.601
04/02/11 Sat	20159.27	61.867	9041.204
04/03/11 Sun	18051.19	55.397	8095.754
04/04/11 Mon	17306.17	53.111	7761.620
04/05/11 Tue	17262.78	52.978	7742.158
04/06/11 Wed	18313.89	56.203	8213.569
04/07/11 Thu	18714.36	57.432	8393.177
04/08/11 Fri	20756.96	63.701	9309.257
04/09/11 Sat	21637.38	66.403	9704.119
04/10/11 Sun	21651.31	66.445	9710.365
04/11/11 Mon	21575.65	66.213	9676.430
04/12/11 Tue	21614.53	66.333	9693.871
04/13/11 Wed	18416.36	56.518	8259.528
04/14/11 Thu	17299.45	53.090	7758.605
04/15/11 Fri	19314.75	59.275	8662.443
04/16/11 Sat	21227.53	65.145	9520.305
04/17/11 Sun	22646.58	69.500	10156.734
04/18/11 Mon	20974.79	64.369	9406.954
04/19/11 Tue	23007.94	70.609	10318.798
04/20/11 Wed	23080.99	70.833	10351.558
04/21/11 Thu	22871.72	70.191	10257.706
04/22/11 Fri	23065.73	70.786	10344.715
04/23/11 Sat	23001.36	70.589	10315.848
04/24/11 Sun	20874.16	64.060	9361.823
04/25/11 Mon	20198.11	61.986	9058.622
04/26/11 Tue	22408.71	68.770	10050.048
04/27/11 Wed	23072.55	70.807	10347.774
04/28/11 Thu	24050.32	73.808	10786.292
04/29/11 Fri	24359.85	74.758	10925.116
04/30/11 Sat	23467.21	72.018	10524.775

Total K/gal	**283,555.770**
Acre-Ft	**1,940.296**
Average Day K/gal	**9,451.859**
Max Day K/gal	**10,925.116**
Production Days	**30.0**

05/01/11 00:00	Raw Water Flow CFS	May	
06/01/11 00:00	**WT_FIT_21000**	**Tot CFS**	**K/gal**
05/01/11 Sun	23088.62	70.856	10354.983
05/02/11 Mon	23024.73	70.660	10326.328
05/03/11 Tue	23094.23	70.874	10357.499
05/04/11 Wed	24096.10	73.948	10806.823
05/05/11 Thu	24483.17	75.136	10980.422
05/06/11 Fri	24465.14	75.081	10972.337
05/07/11 Sat	23589.34	72.393	10579.550
05/08/11 Sun	23071.66	70.804	10347.377
05/09/11 Mon	23069.28	70.797	10346.306
05/10/11 Tue	23038.90	70.704	10332.684
05/11/11 Wed	23056.90	70.759	10340.755
05/12/11 Thu	23053.16	70.748	10339.079
05/13/11 Fri	23039.96	70.707	10333.157
05/14/11 Sat	23045.07	70.723	10335.450
05/15/11 Sun	23049.40	70.736	10337.390
05/16/11 Mon	25272.78	77.559	11334.551
05/17/11 Tue	25930.14	79.577	11629.370
05/18/11 Wed	25936.28	79.596	11632.124
05/19/11 Thu	25932.92	79.585	11630.616
05/20/11 Fri	25926.14	79.564	11627.579
05/21/11 Sat	22797.60	69.963	10224.463
05/22/11 Sun	24805.43	76.125	11124.950
05/23/11 Mon	25948.93	79.634	11637.800
05/24/11 Tue	25970.02	79.699	11647.256
05/25/11 Wed	23371.14	71.723	10481.689
05/26/11 Thu	27975.23	85.853	12546.571
05/27/11 Fri	28791.36	88.357	12912.595
05/28/11 Sat	28815.28	88.431	12923.322
05/29/11 Sun	26689.37	81.907	11969.879
05/30/11 Mon	25958.38	79.663	11642.038
05/31/11 Tue	25915.68	79.532	11622.886

Total K/gal	**343,677.830**
Acre-Ft	**2,351.696**
Average Day K/gal	**11,086.382**
Max Day K/gal	**12,923.322**
Production Days	**31.0**

06/01/11 00:00	Raw Water Flow CFS	June	
07/01/11 00:00	**WT_FIT_21000**	**Tot CFS**	**K/gal**
06/01/11 Wed	25943.66	79.618	11635.434
06/02/11 Thu	28754.32	88.244	12895.985
06/03/11 Fri	30220.61	92.744	13553.599
06/04/11 Sat	30254.40	92.847	13568.751
06/05/11 Sun	30224.80	92.757	13555.478
06/06/11 Mon	30247.42	92.826	13565.623
06/07/11 Tue	30234.48	92.786	13559.816
06/08/11 Wed	29155.40	89.475	13075.863
06/09/11 Thu	27833.17	85.417	12482.858
06/10/11 Fri	26368.13	80.921	11825.805
06/11/11 Sat	25935.84	79.594	11631.925
06/12/11 Sun	25952.48	79.645	11639.392
06/13/11 Mon	25932.91	79.585	11630.615
06/14/11 Tue	28018.75	85.986	12566.088
06/15/11 Wed	28790.98	88.356	12912.424
06/16/11 Thu	28797.42	88.376	12915.315
06/17/11 Fri	28771.80	88.297	12903.823
06/18/11 Sat	29801.72	91.458	13365.729
06/19/11 Sun	30213.79	92.723	13550.537
06/20/11 Mon	32185.32	98.773	14434.749
06/21/11 Tue	33117.92	101.635	14853.007
06/22/11 Wed	29907.99	91.784	13413.389
06/23/11 Thu	28784.05	88.335	12909.316
06/24/11 Fri	28804.20	88.397	12918.353
06/25/11 Sat	28806.24	88.403	12919.271
06/26/11 Sun	28781.93	88.329	12908.367
06/27/11 Mon	28801.40	88.388	12917.099
06/28/11 Tue	28833.64	88.487	12931.557
06/29/11 Wed	28816.94	88.436	12924.066
06/30/11 Thu	28795.99	88.372	12914.671

Total K/gal	**388,878.903**
Acre-Ft	**2,660.994**
Average Day K/gal	**12,962.630**
Max Day K/gal	**14,853.007**
Production Days	**30.0**

07/01/11 00:00	Raw Water Flow CFS	July	
08/01/11 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
07/01/11 Fri	26365.81	80.914	11824.764
07/02/11 Sat	28784.69	88.337	12909.603
07/03/11 Sun	28808.41	88.410	12920.244
07/04/11 Mon	26910.84	82.586	12069.202
07/05/11 Tue	25677.49	78.801	11516.059
07/06/11 Wed	25890.44	79.455	11611.564
07/07/11 Thu	25898.41	79.479	11615.139
07/08/11 Fri	25903.28	79.494	11617.323
07/09/11 Sat	27874.03	85.542	12501.182
07/10/11 Sun	28797.22	88.375	12915.224
07/11/11 Mon	16853.81	51.722	7558.739
07/12/11 Tue	12959.07	39.770	5811.994
07/13/11 Wed	16290.56	49.994	7306.128
07/14/11 Thu	17284.64	53.045	7751.962
07/15/11 Fri	17300.13	53.092	7758.910
07/16/11 Sat	17278.40	53.025	7749.166
07/17/11 Sun	17328.19	53.178	7771.496
07/18/11 Mon	17276.28	53.019	7748.215
07/19/11 Tue	17271.02	53.003	7745.855
07/20/11 Wed	17304.06	53.104	7760.673
07/21/11 Thu	23186.80	71.158	10399.015
07/22/11 Fri	25919.07	79.543	11624.408
07/23/11 Sat	25913.11	79.524	11621.734
07/24/11 Sun	28001.93	85.935	12558.544
07/25/11 Mon	28795.46	88.370	12914.432
07/26/11 Tue	26614.42	81.677	11936.261
07/27/11 Wed	25893.07	79.463	11612.747
07/28/11 Thu	25922.34	79.553	11625.873
07/29/11 Fri	25902.78	79.493	11617.099
07/30/11 Sat	25930.45	79.578	11629.511
07/31/11 Sun	28062.89	86.122	12585.883

Total K/gal	**326,588.950**
Acre-Ft	**2,234.761**
Average Day K/gal	**10,535.127**
Max Day K/gal	**12,920.244**
Production Days	**31.0**

08/01/11 00:00	Raw Water Flow CFS	August	
09/01/11 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
08/01/11 Mon	30721.34	94.280	13778.169
08/02/11 Tue	31680.78	97.225	14208.469
08/03/11 Wed	31248.33	95.898	14014.517
08/04/11 Thu	31660.75	97.163	14199.483
08/05/11 Fri	31657.00	97.152	14197.801
08/06/11 Sat	31649.37	97.128	14194.381
08/07/11 Sun	28612.42	87.808	12832.342
08/08/11 Mon	27318.69	83.838	12252.121
08/09/11 Tue	27345.61	83.921	12264.194
08/10/11 Wed	27353.45	83.945	12267.708
08/11/11 Thu	27366.11	83.984	12273.388
08/12/11 Fri	20496.35	62.901	9192.378
08/13/11 Sat	17283.56	53.041	7751.481
08/14/11 Sun	17213.92	52.828	7720.245
08/15/11 Mon	17281.38	53.035	7750.500
08/16/11 Tue	17271.51	53.004	7746.073
08/17/11 Wed	7830.38	24.031	3511.835
08/18/11 Thu	4222.18	12.957	1893.600
08/19/11 Fri	4262.36	13.081	1911.620
08/20/11 Sat	4285.51	13.152	1922.003
08/21/11 Sun	11873.98	36.440	5325.344
08/22/11 Mon	14310.42	43.917	6418.059
08/23/11 Tue	14327.85	43.971	6425.875
08/24/11 Wed	14369.18	44.097	6444.414
08/25/11 Thu	7891.84	24.219	3539.402
08/26/11 Fri	4293.16	13.175	1925.433
08/27/11 Sat	4344.22	13.332	1948.331
08/28/11 Sun	4410.82	13.536	1978.201
08/29/11 Mon	4434.78	13.610	1988.949
08/30/11 Tue	6542.00	20.077	2934.014
08/31/11 Wed	7292.85	22.381	3270.761

Total K/gal	**238,081.089**
Acre-Ft	**1,629.125**
Average Day K/gal	**7,680.035**
Max Day K/gal	**14,208.469**
Production Days	**31.0**

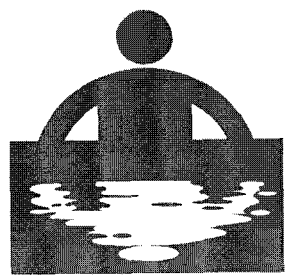
09/01/11 00:00	Raw Water Flow CFS	September	
10/01/11 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
09/01/11 Thu	9199.64	28.233	4125.934
09/02/11 Fri	10078.36	30.929	4520.031
09/03/11 Sat	12074.44	37.055	5415.247
09/04/11 Sun	12979.27	39.832	5821.054
09/05/11 Mon	12920.56	39.652	5794.722
09/06/11 Tue	10655.92	32.702	4779.057
09/07/11 Wed	10094.72	30.980	4527.367
09/08/11 Thu	8070.30	24.767	3619.436
09/09/11 Fri	7210.25	22.127	3233.714
09/10/11 Sat	7183.47	22.045	3221.703
09/11/11 Sun	10317.14	31.662	4627.119
09/12/11 Mon	11505.20	35.308	5159.948
09/13/11 Tue	11490.66	35.264	5153.431
09/14/11 Wed	11549.74	35.445	5179.927
09/15/11 Thu	11546.11	35.434	5178.299
09/16/11 Fri	19480.91	59.785	8736.966
09/17/11 Sat	23040.27	70.708	10333.296
09/18/11 Sun	19646.14	60.292	8811.067
09/19/11 Mon	18699.39	57.386	8386.464
09/20/11 Tue	19694.85	60.441	8832.913
09/21/11 Wed	24353.68	74.739	10922.349
09/22/11 Thu	25921.38	79.550	11625.443
09/23/11 Fri	25912.53	79.523	11621.471
09/24/11 Sat	25885.03	79.438	11609.140
09/25/11 Sun	22524.77	69.126	10102.099
09/26/11 Mon	16058.39	49.281	7202.005
09/27/11 Tue	22162.62	68.015	9939.680
09/28/11 Wed	24497.77	75.181	10986.968
09/29/11 Thu	24507.91	75.212	10991.518
09/30/11 Fri	24494.96	75.172	10985.709

Total K/gal	**221,444.078**
Acre-Ft	**1,515.283**
Average Day K/gal	**7,381.469**
Max Day K/gal	**11,625.443**
Production Days	**30.0**

10/01/11 00:00	Raw Water Flow CFS	October	
11/01/11 00:00	WT_FIT_21000	**Tot CFS**	**K/gal**
10/01/11 Sat	24460.73	75.067	10970.358
10/02/11 Sun	22341.73	68.564	10020.011
10/03/11 Mon	19561.75	60.033	8773.219
10/04/11 Tue	20819.34	63.892	9337.233
10/05/11 Wed	21580.96	66.230	9678.812
10/06/11 Thu	20635.66	63.329	9254.859
10/07/11 Fri	9349.65	28.693	4193.210
10/08/11 Sat			
10/09/11 Sun			
10/10/11 Mon			
10/11/11 Tue			
10/12/11 Wed			
10/13/11 Thu			
10/14/11 Fri			
10/15/11 Sat			
10/16/11 Sun			
10/17/11 Mon			
10/18/11 Tue			
10/19/11 Wed			
10/20/11 Thu			
10/21/11 Fri			
10/22/11 Sat			
10/23/11 Sun			
10/24/11 Mon			
10/25/11 Tue			
10/26/11 Wed			
10/27/11 Thu			
10/28/11 Fri			
10/29/11 Sat			
10/30/11 Sun			
10/31/11 Mon			

Total K/gal to-date	**62,227.703**
Acre-Ft	**425.808**
Average Day K/gal	**8,889.672**
Max Day K/gal	**10,970.358**
Production Days	**7.0**

EXHIBIT H



SCG 9.5 Agua Fria CAP Water Deliveries in Million Gallons 2006 - 2010

2006

	J	F	M	A	M	J	J	A	S	O	N	D	Total
MWD GSF	0	0	0	0	0	0	0	0	0	0	0	0	1843

2007

	J	F	M	A	M	J	J	A	S	O	N	D	Total
	0	0	0	0	0	0	0	0	0	0	0	0	0
MWD GSF	0	0	140	140	140	140	140	140	140	140	0	0	1121
TDRP USF	0	0	0	0	0	0	1865	0	0	0	0	0	1865
DMB	0	12	16	27	31	31	22	34	34	0	0	0	207
Total	0	12	156	167	171	171	2028	174	174	140	0	0	3193

2008

	J	F	M	A	M	J	J	A	S	O	N	D	Total
MWD GSF	0	0	191	461	500	539	346	308	79	0	0	0	2424
TDRP USF	0	0	129	129	129	129	129	129	129	129	0	0	1030
DMB	0	0	0	0	0	8	7	23	24	22	2	0	85
Total	0	0	320	590	628	676	482	459	231	151	2	0	3539

2009

	J	F	M	A	M	J	J	A	S	O	N	D	Total
MWD GSF	0	0	256	559	597	637	444	406	176	0	0	0	3076
WTTP	0	0	0	0	0	0	0	0	0	0	79	0	79
TDRP USF	0	0	0	144	0	0	0	0	0	0	0	0	144
DMB	0	0	0	2	10	4	8	11	19	6	0	0	59
Total	0	0	256	704	607	641	452	416	195	6	79	0	3357

2010

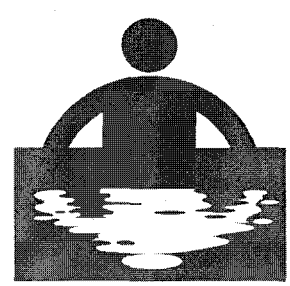
	J	F	M	A	M	J	J	A	S	O	N	D	Total
MWD GSF	0	0	94	164	119	145	145	287	212	0	0	0	1165
WTTP	0	11	180	216	262	339	235	108	343	324	280	151	2448
DMB	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	11	273	380	381	483	380	395	555	326	280	151	3615

2011

	J	F	M	A	M	J	J	A	S	O	N	D	Total
MWD GSF	0	0	0	24	24	24	23	24	24	0	0	0	143
TDRP USF	0	78	0	0	0	0	0	0	0	0	0	0	78
WTTP	0	0	218	295	321	443	322	271	194	0	0	0	2063
DMB	0	0	0	0	0	12	10	0	0	0	0	0	22
Total	0	78	218	318	344	479	356	295	218	0	0	0	2306

MWD GSF - Maricopa Water District Groundwater Savings Facility
TDRP USF - Tonopah Desert Recharge Project Underground Storage Facility
DMB - Bulk Water Customer
WTTP - White Tanks Treatment Plant

EXHIBIT I



COMPANY: ARIZONA AMERICAN WATER COMPANY
DOCKET NO: W-01303A-10-0448

Response provided by: Ian Crooks

Title: Director of Engineering

Address: 2355 W. Pinnacle Peak Rd., #300
Phoenix, AZ 85027

Company Response Number: Sun City Grand 10.35

Q: With regard to all outages, equipment failures, source of supply constraints, or any other production reasons that would have prevented the White Tanks facility from producing at its full 20MGD capacity (other than annual closure of the canal for maintenance), please provide the following for the period July 2010 through the present:

(a) duration;

(b) date(s);

(c) reason

(d) reduction to total output capacity.

A: Listed below are the events that caused lower production than normally expected from the White Tanks:

1. Lake Pleasant CAP Construction - June 28, 2010 thru July 31, 2010: A CAP canal construction project commenced which required switching the canal source water from Colorado River to Lake Pleasant. The Lake Pleasant water supply came from the lake bottom, which again produced high raw water turbidity levels. The decision was made for White Tanks to run at a reduced flow rate to maintain quality parameters over the course of the construction schedule. During this event, some Agua Fria Water District wells were brought back on-line to augment White Tank production to meet system demand. The estimated reduction to White Tanks total output capacity during this period is 141 million gallons.

2. Mechanical Failure of the DAF Compressors – August 12, 2010 through August 23, 2010: The DAF (dissolved air flotation) compressors failed, leaving the plant incapable of treating the water. The DAF failure was the result of contractor error during White Tanks construction. This shutdown continued until a backup compressor was supplied and installed. Once installed the plant began production again but at reduced flows while the temporary compressors were tested with incrementally increased daily production rates. The plant returned to full production on August 31. During this event, some Agua Fria Water District wells were brought back on-line to augment White Tank production to meet system demand. The

estimated reduction to White Tanks total output capacity during this period is 172 million gallons.

3. Raw Water Quality - August 2011 through September 2011 – The raw water quality began deteriorate in July from the growth of algae in canal as a result of higher water temperatures and lower CAP canal water velocity because of the change in water sources on the CAP canal. The algae growth caused higher organics and lower alkalinity in the raw water. As the raw water quality continued to worsen, the White Tanks plant had difficulty maintaining optimum treatment. On August 12th, management decided to reduce the production of White Tanks to about three to four million gallons per day in order to maintain the water quality delivered to customers and determine the cause of the raw water quality issue and options to mitigate in the future. After identifying the cause, studying and testing solutions, and implementing changes to the treatment process, on Monday, September 12th, management authorized plant production to increase and by Friday, September 16th, production returned to normal levels. The estimated reduction to White Tanks total output capacity during this period is 237 million gallons.